

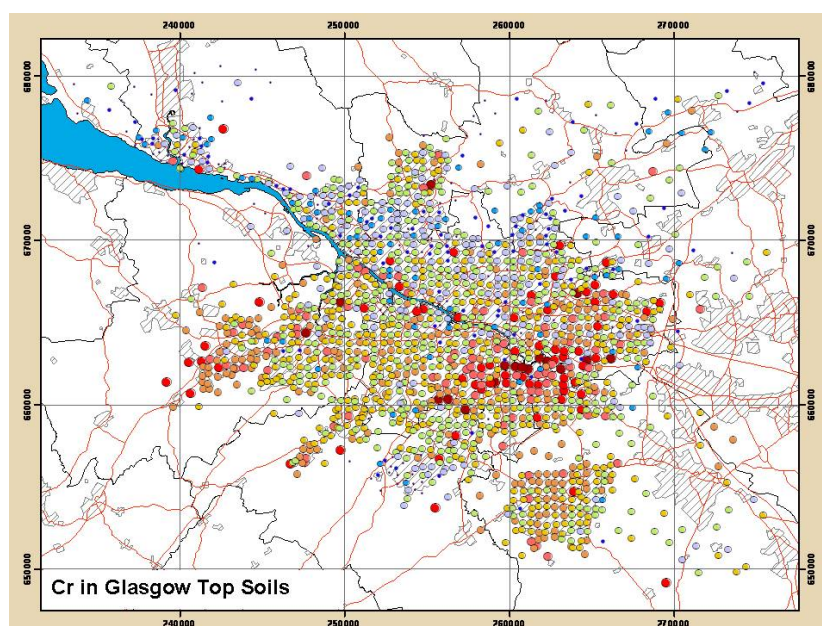


**British  
Geological Survey**  
NATURAL ENVIRONMENT RESEARCH COUNCIL

# Urban Soil Geochemistry of Glasgow - Appendices 3-6 Geochemical Maps

Land Use Planning and Development Programme

Open Report OR/08/002





BRITISH GEOLOGICAL SURVEY

LAND USE PLANNING AND DEVELOPMENT PROGRAMME

OPEN REPORT OR/08/002

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*Keywords*

Urban; soil; geochemistry; mapping; contaminants; metals; land quality; Glasgow.

*National Grid Reference*

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*Front cover*

Map showing the distribution of chromium in Glasgow top soils (blue-red symbols = low-high Cr content).

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FORDYCE F M, NICE S E, LISTER T R, Ó DOCHARTAIGH B É, COOPER R, ALLEN M, INGHAM M, GOWING C, VICKERS B P AND SCHEIB A. 2012. Urban Soil Geochemistry of Glasgow. *British Geological Survey Open Report*, OR/08/002. 374pp.

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Maps and diagrams in this book use topography based on Ordnance Survey mapping.

# Urban Soil Geochemistry of Glasgow - Appendices 3-6 Geochemical Maps

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## Guide to Report Layout

This report describes the British Geological Survey (BGS) urban soil geochemical survey of Glasgow and is presented in three separate volumes as follows:

### **Urban Soil Geochemistry of Glasgow – Main Report**

- Summary of the Glasgow soil geochemical survey
- Project description, data interpretation, conclusions and bibliography

### **Urban Soil Geochemistry of Glasgow – Appendices 1 and 2 Methods, Tables and Figures**

- The data collection, analysis and interpretation methods employed by the survey
- Presentation of the tables and figures referred to in the Main Report.

### **Urban Soil Geochemistry of Glasgow – Appendices 3-6 Geochemical Maps**

- Presentation of geochemical maps of parameter concentrations in Glasgow top and deeper soils referred to in the Main Report

The Appendices 3-6 volume presented here should be read in conjunction with the Main Report.

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## Glossary – Appendices 3 - 6

The acronyms used in this report are fully listed in the Main Report volume. Those referred to in Appendices 3 to 6 are also listed here.

BGS	British Geological Survey
CLEA	Contaminated Land Exposure Assessment

## References – Appendices 3 - 6

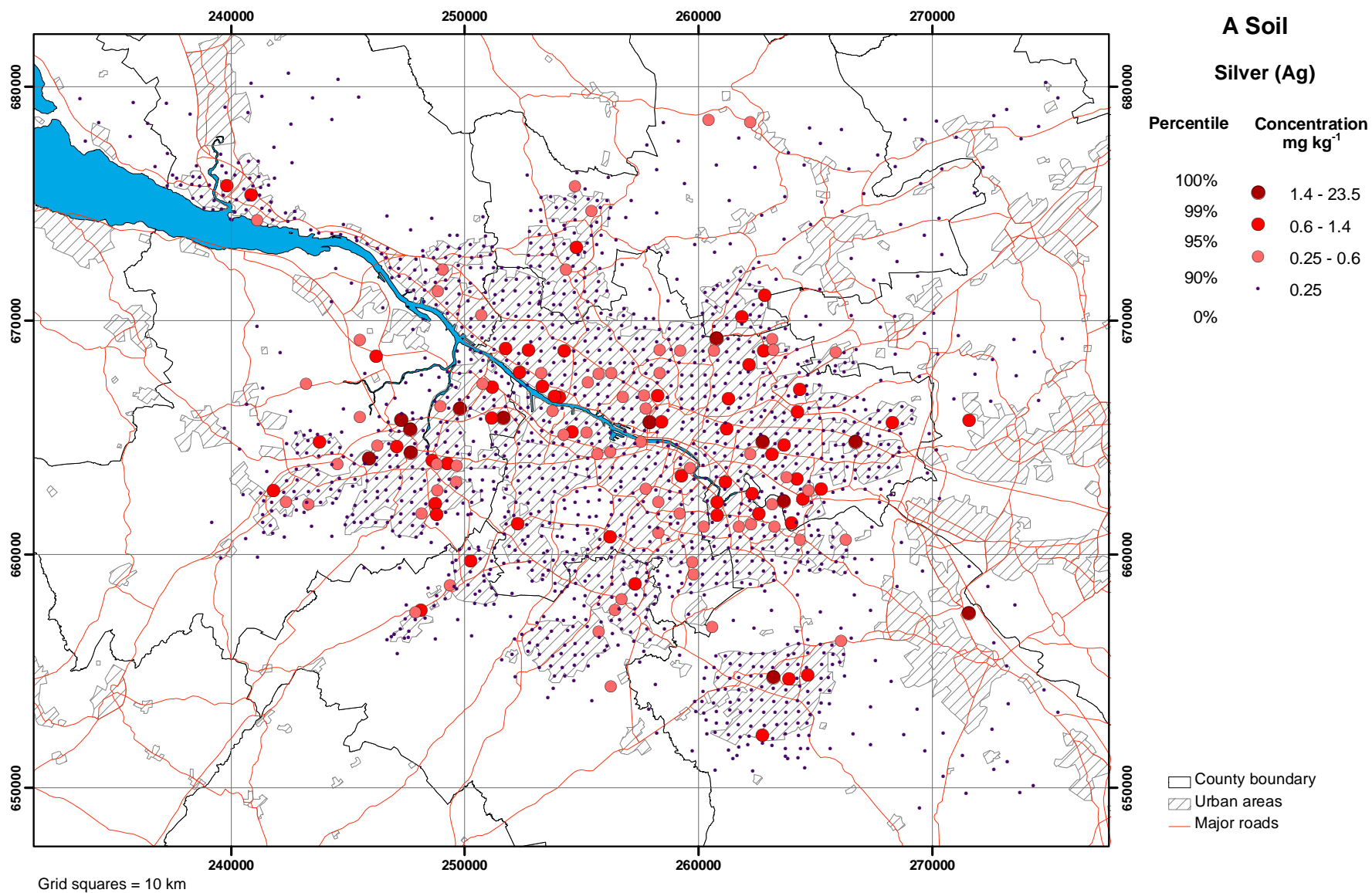
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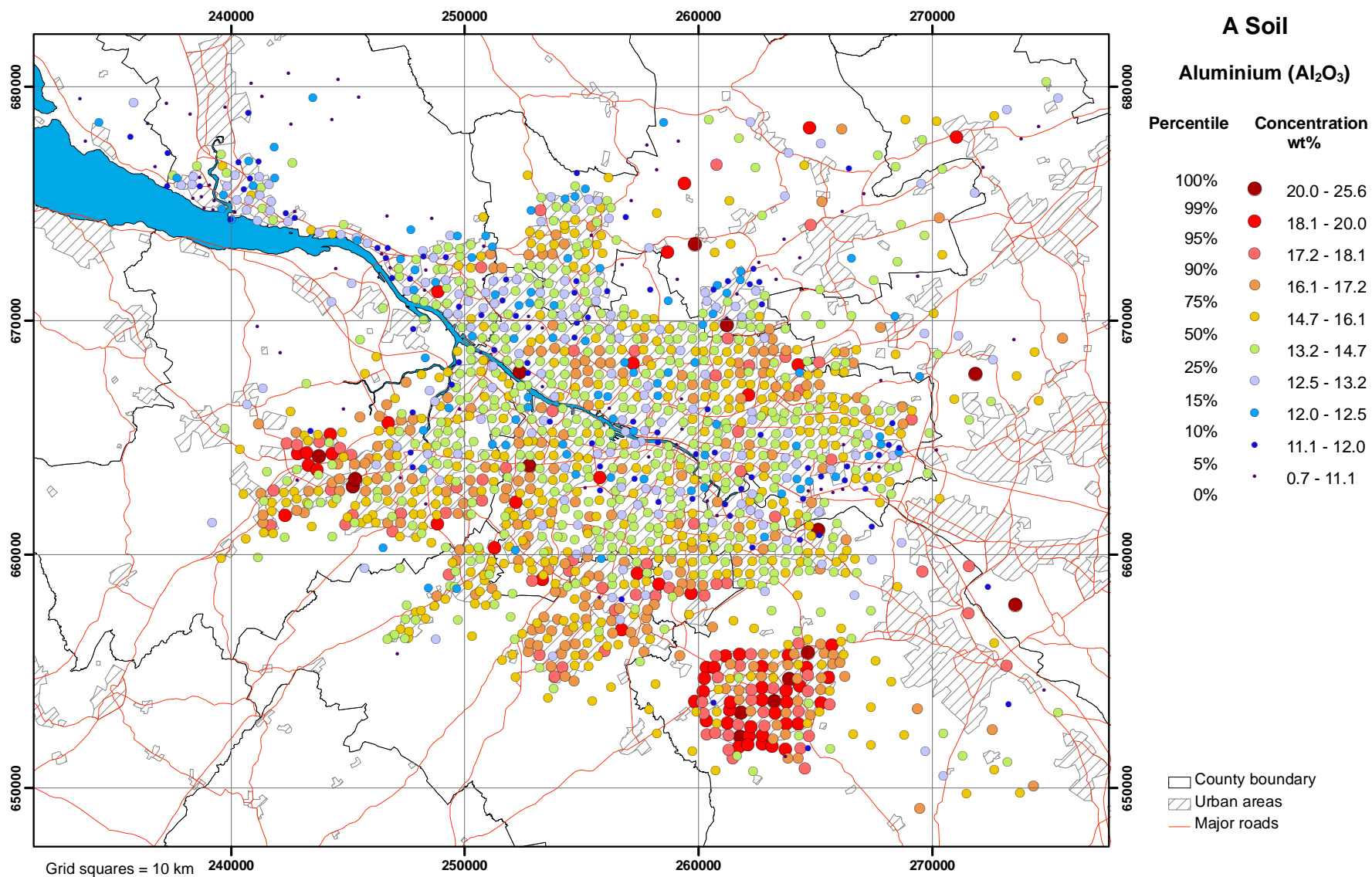
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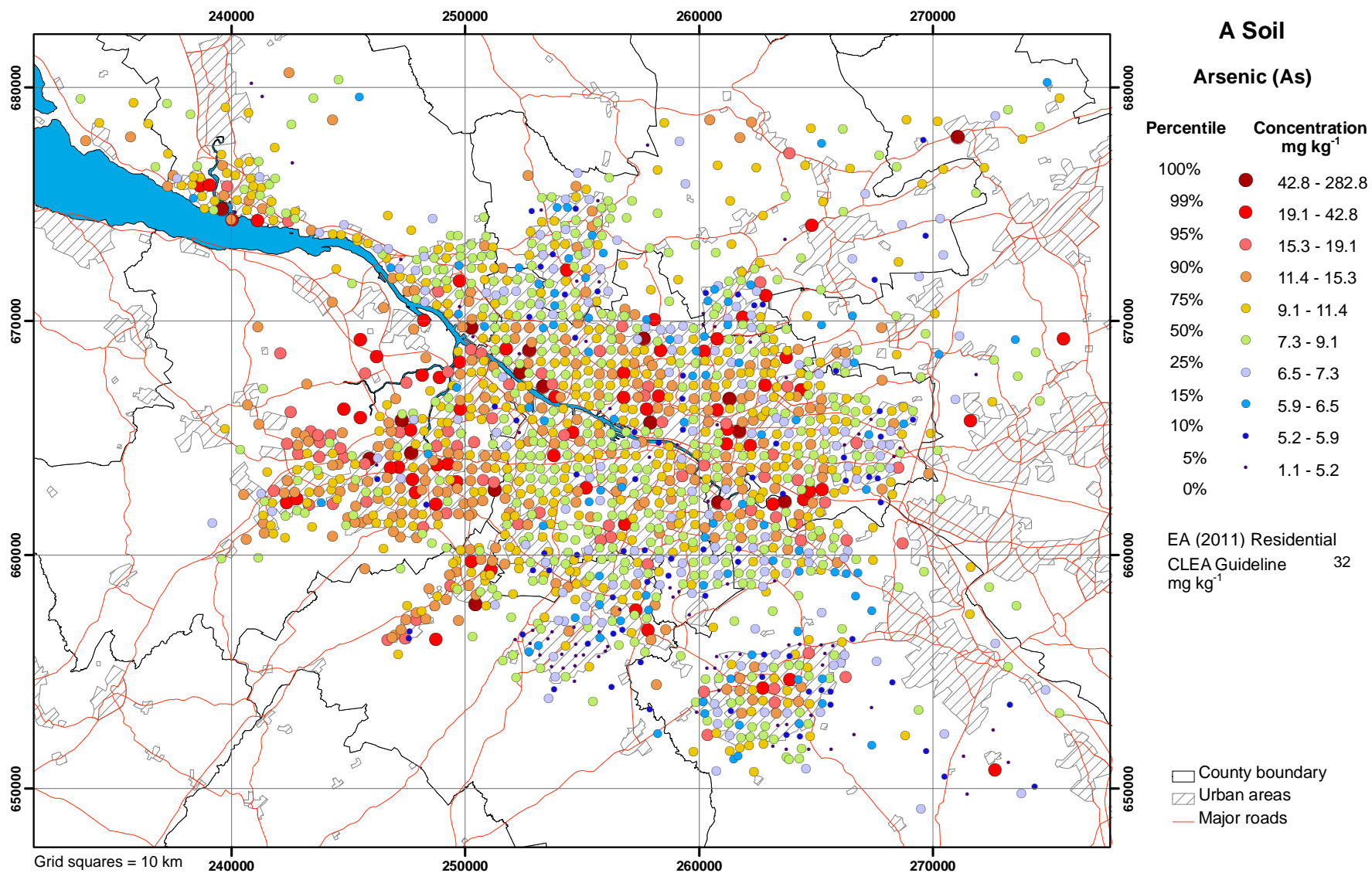
EA. 2011. *Contaminated Land Exposure Assessment Soil Guideline Values*, Environment Agency, <http://www.environment-agency.gov.uk/research/planning/33714.aspx>. Access Date: November 2011.

## Appendix 3 Graduated Symbol Maps of Parameter Concentrations in <2 mm Glasgow Top (A) Soils.

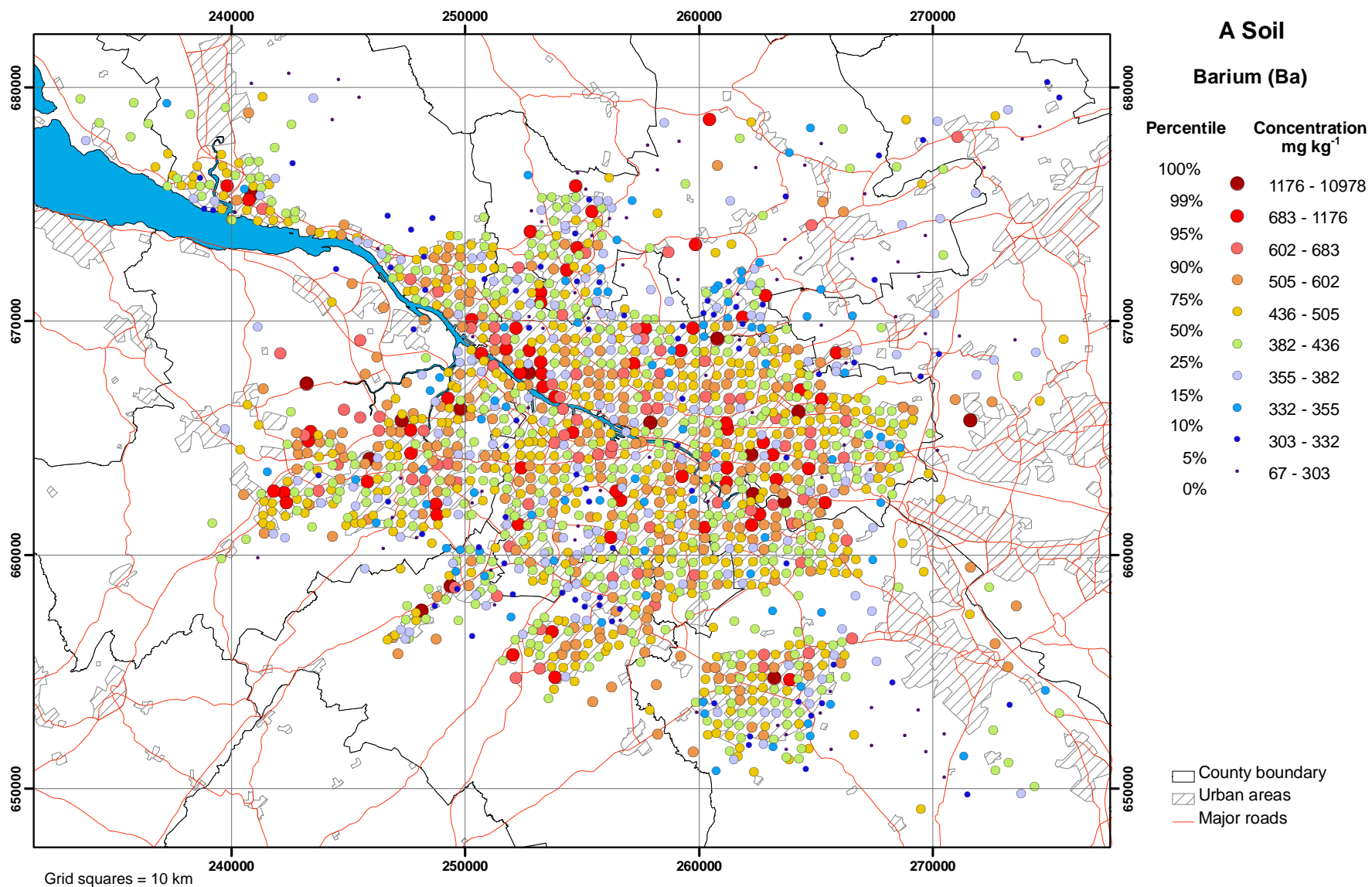
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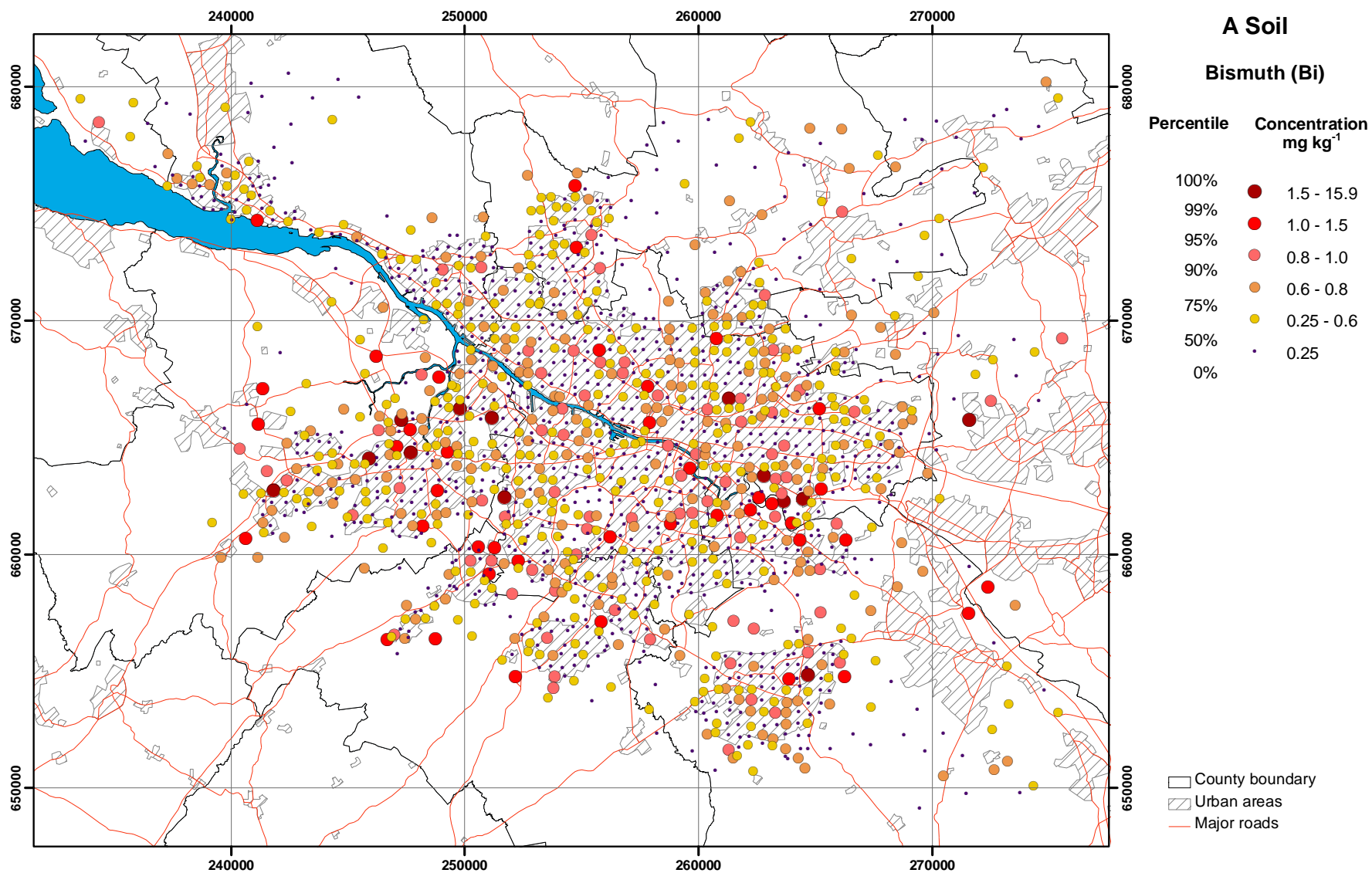






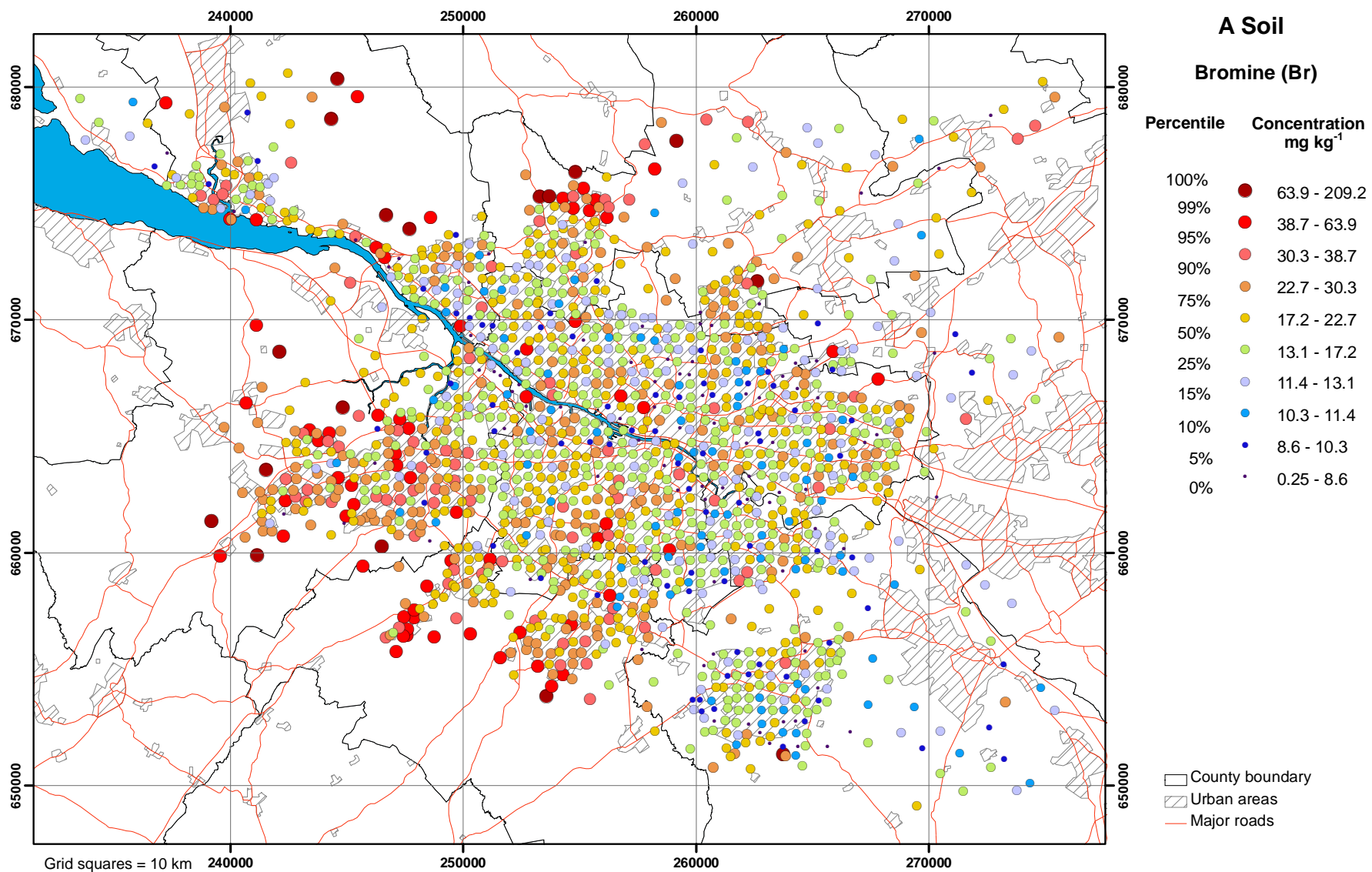


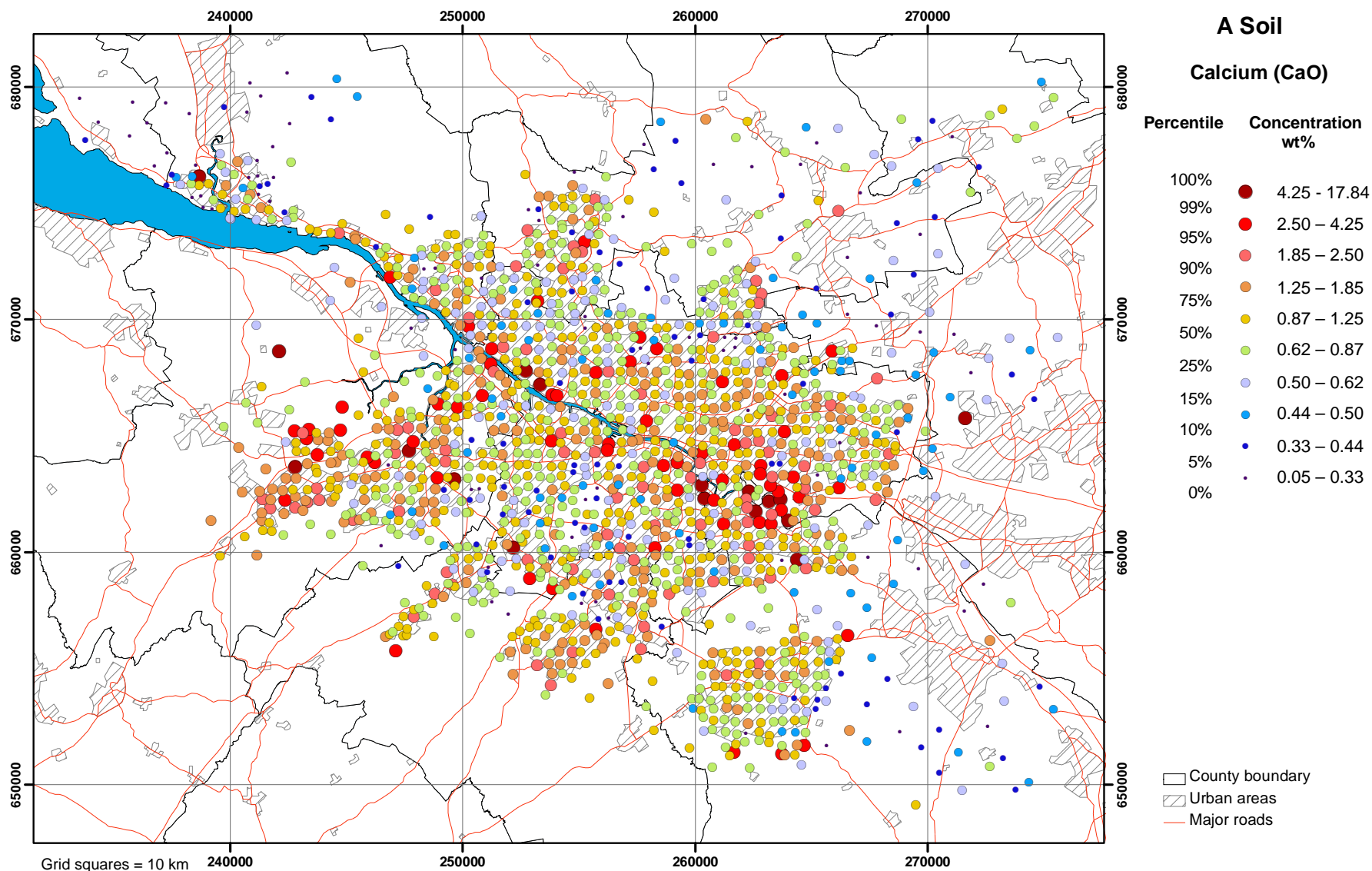


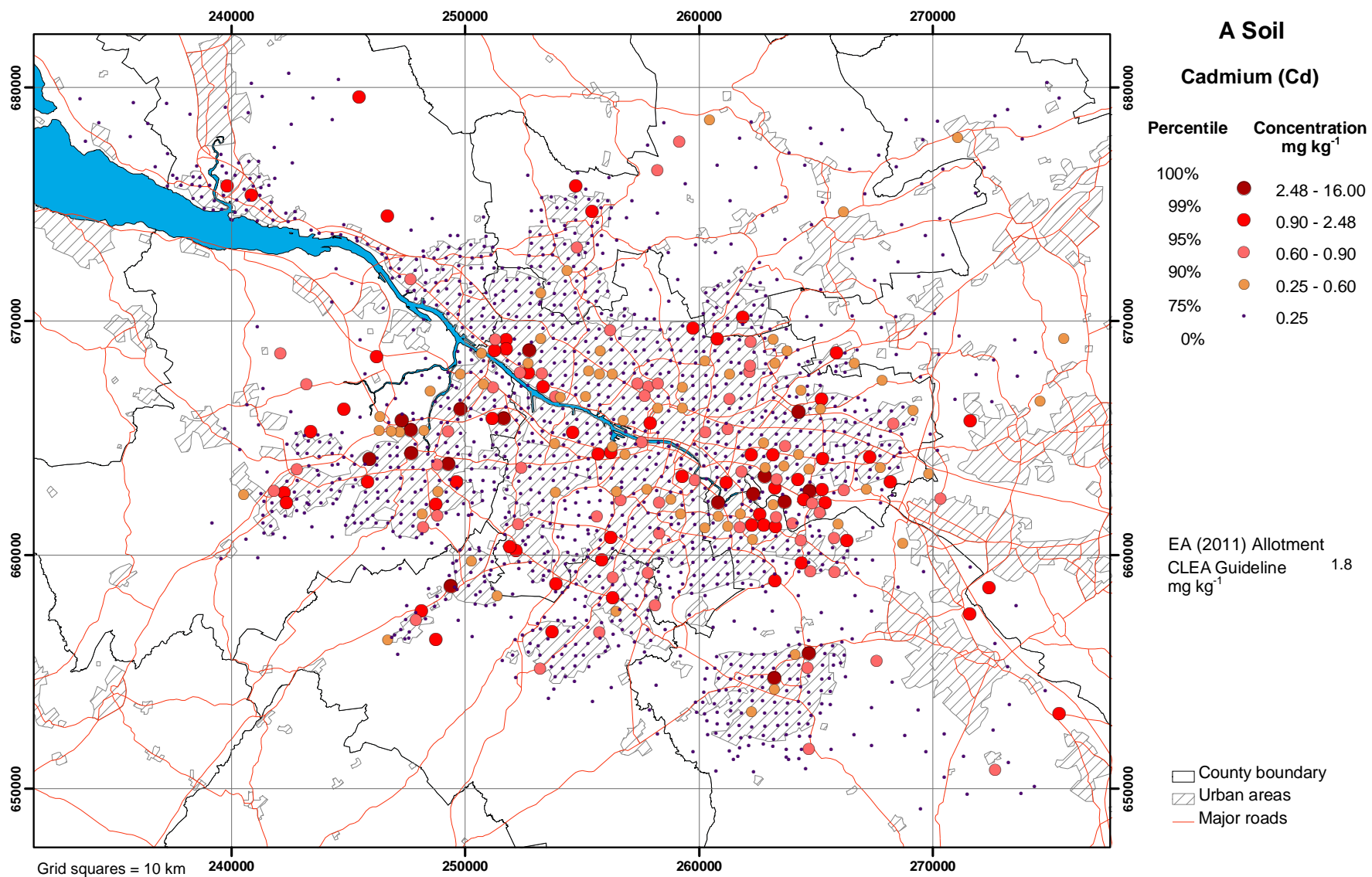


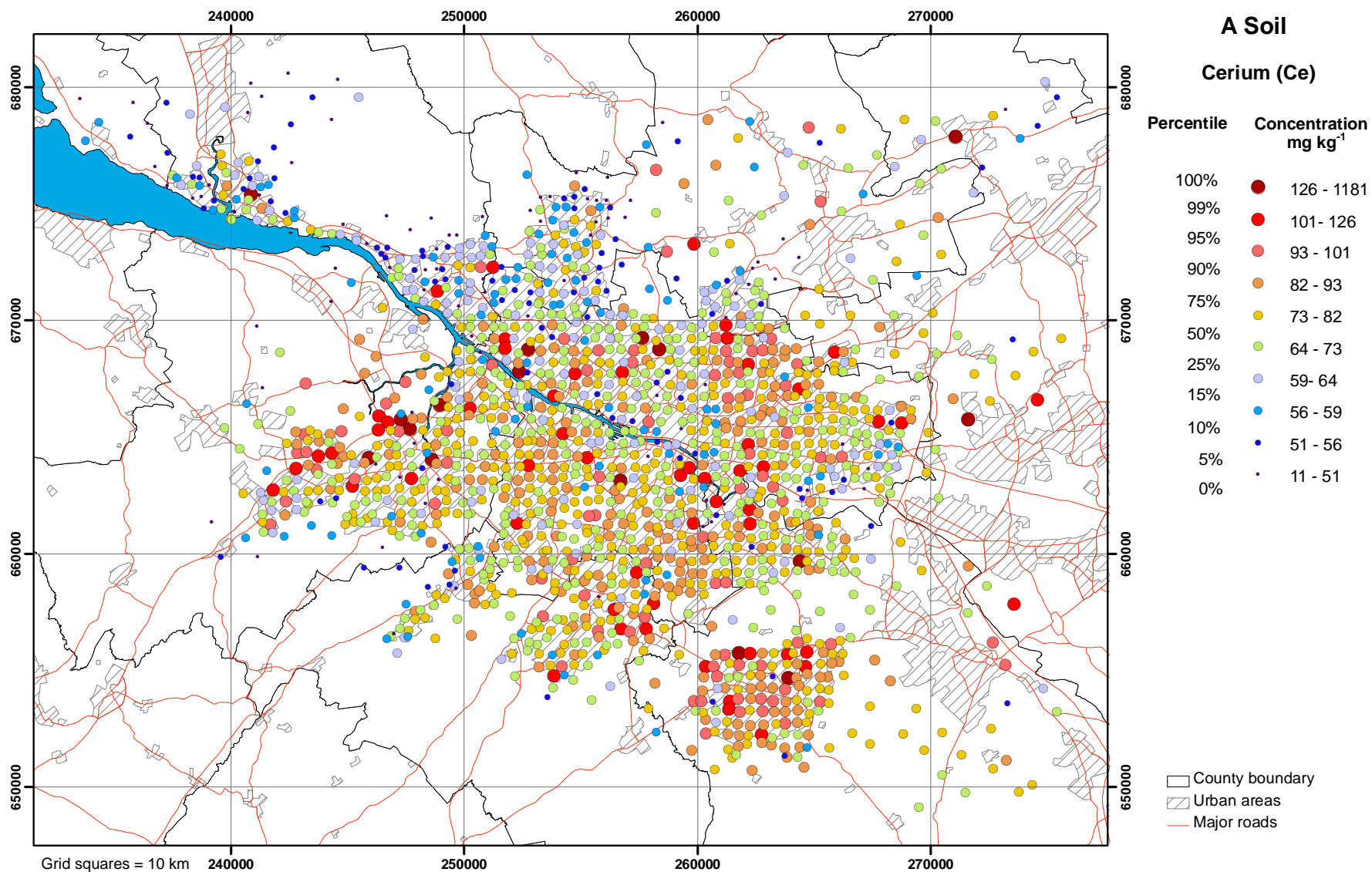
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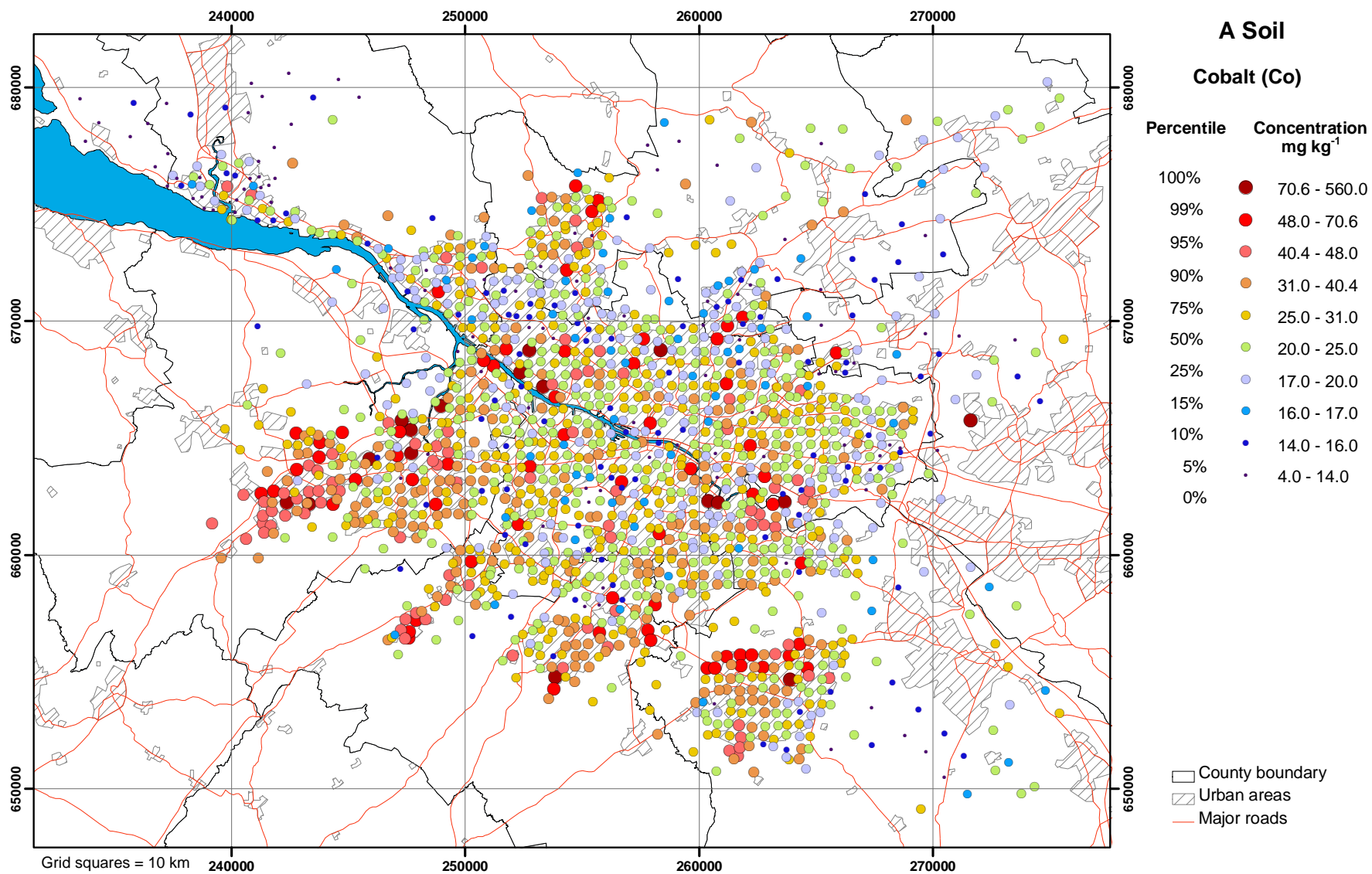


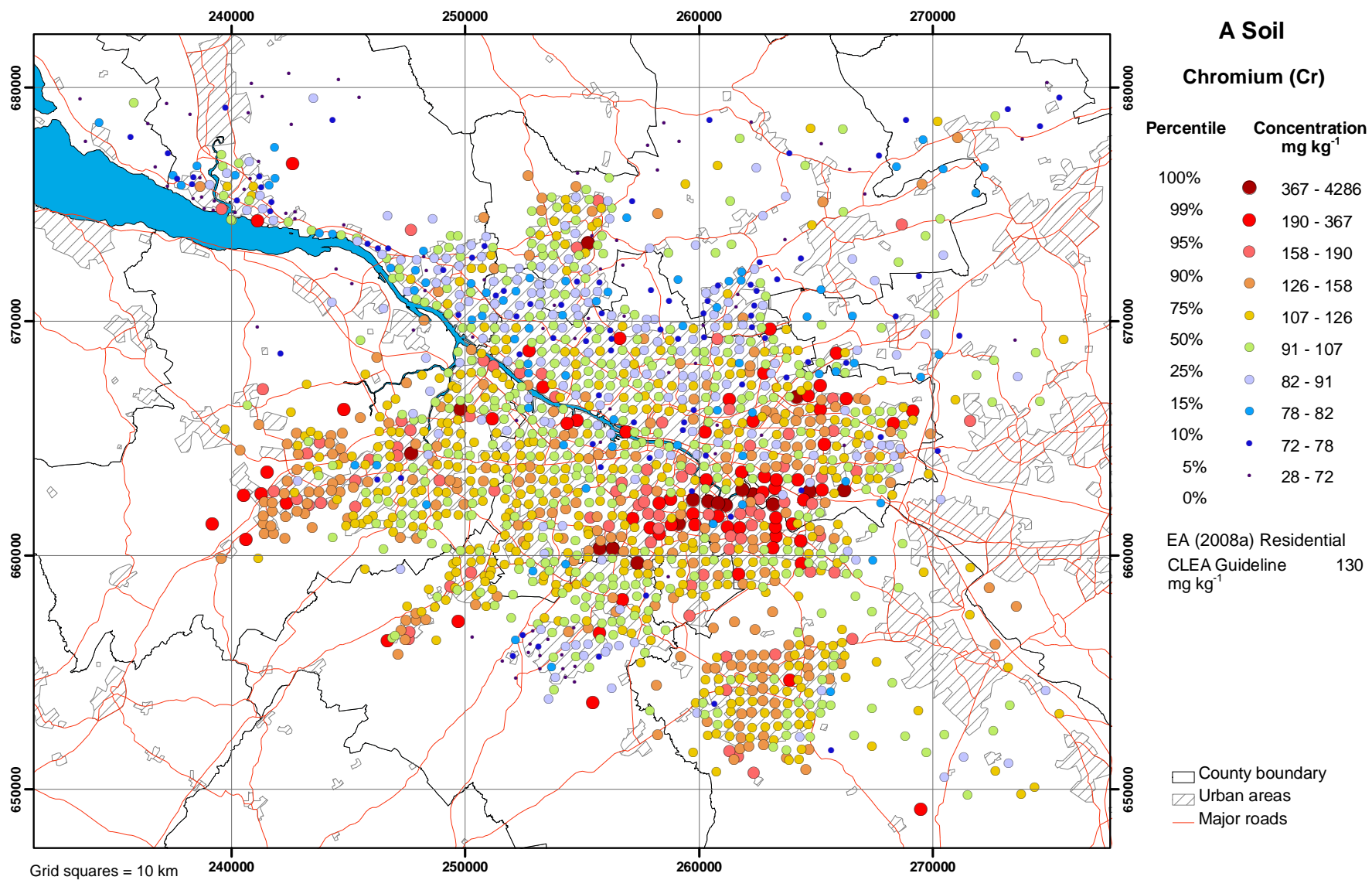


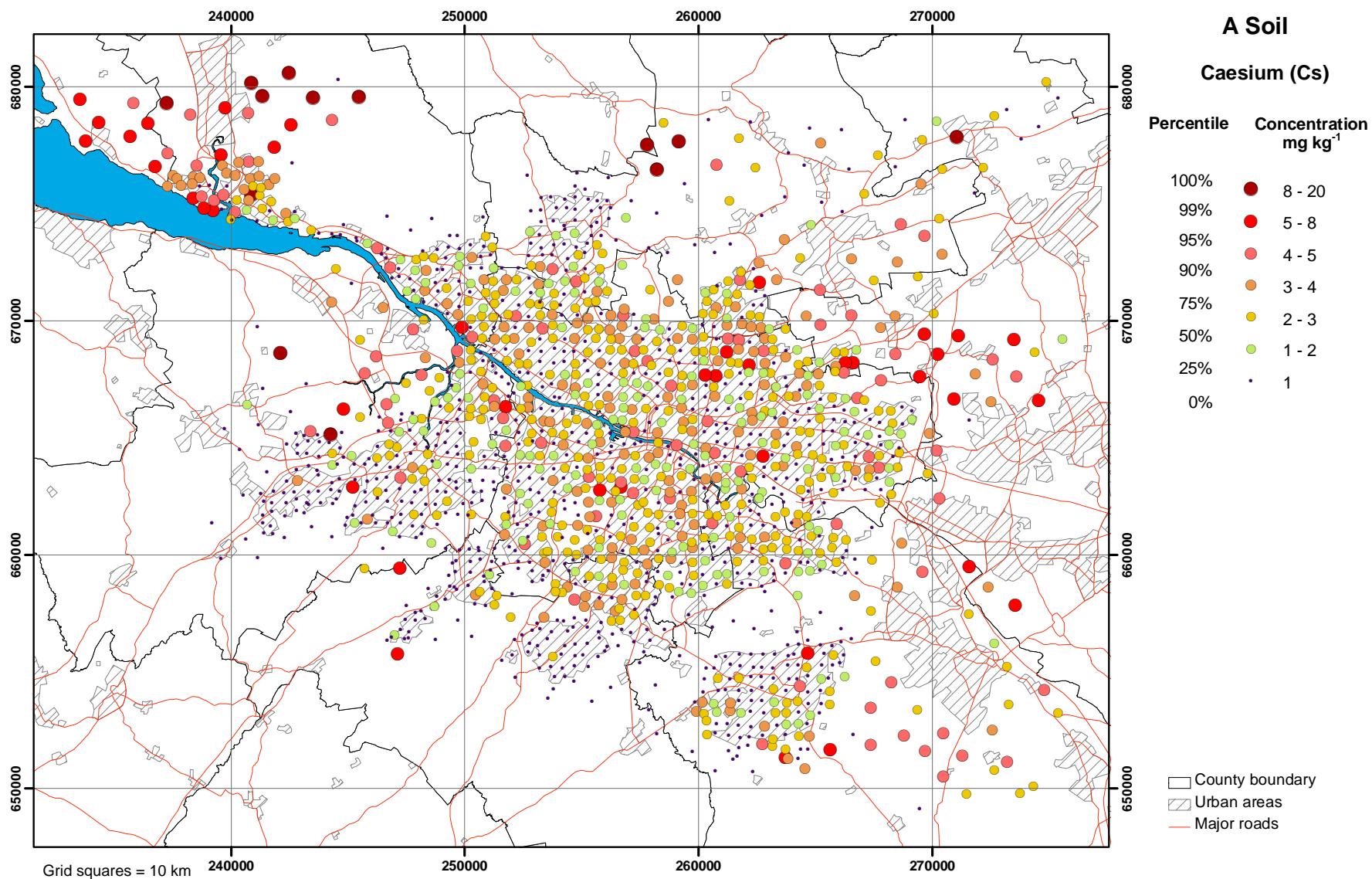


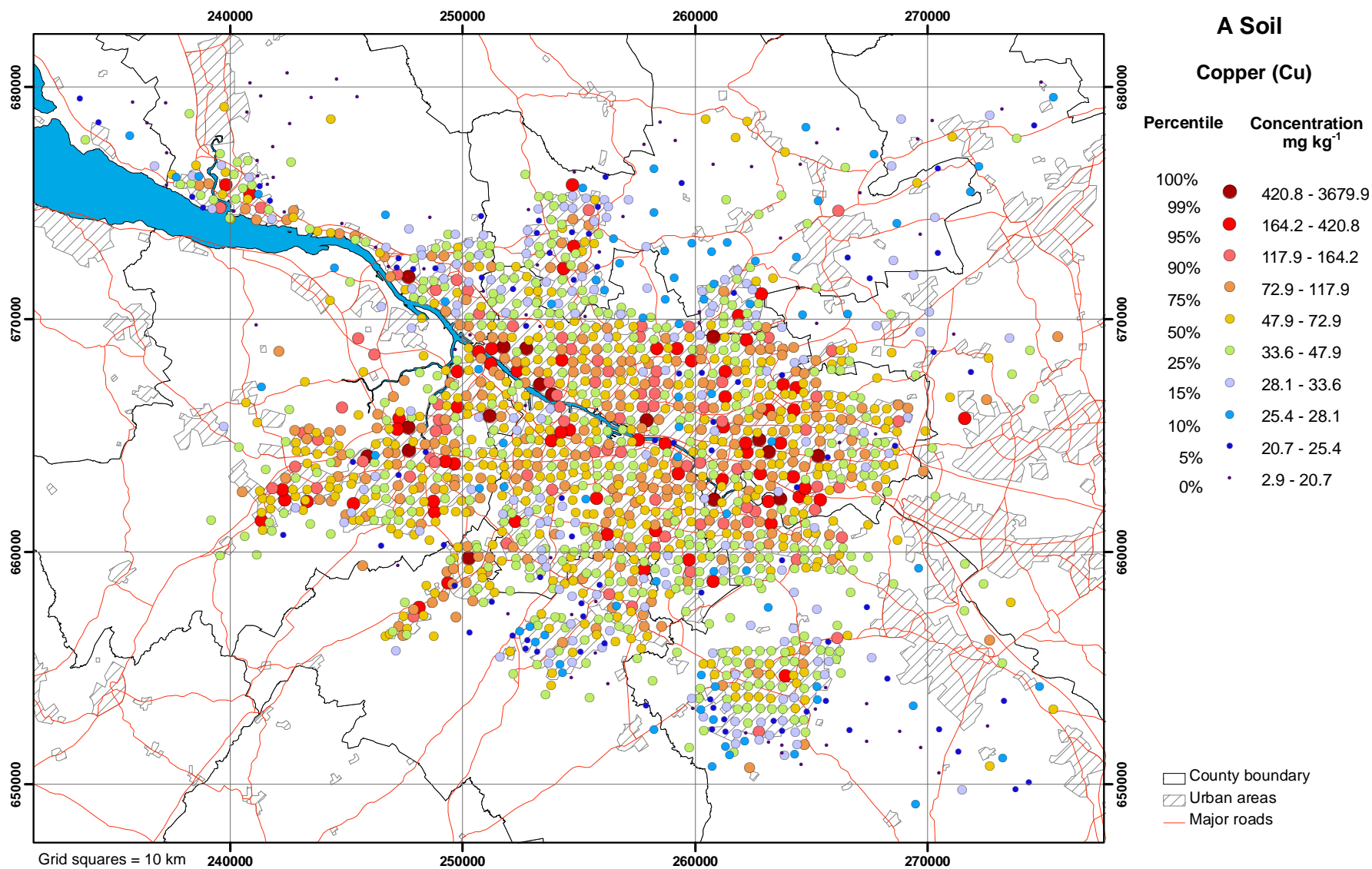




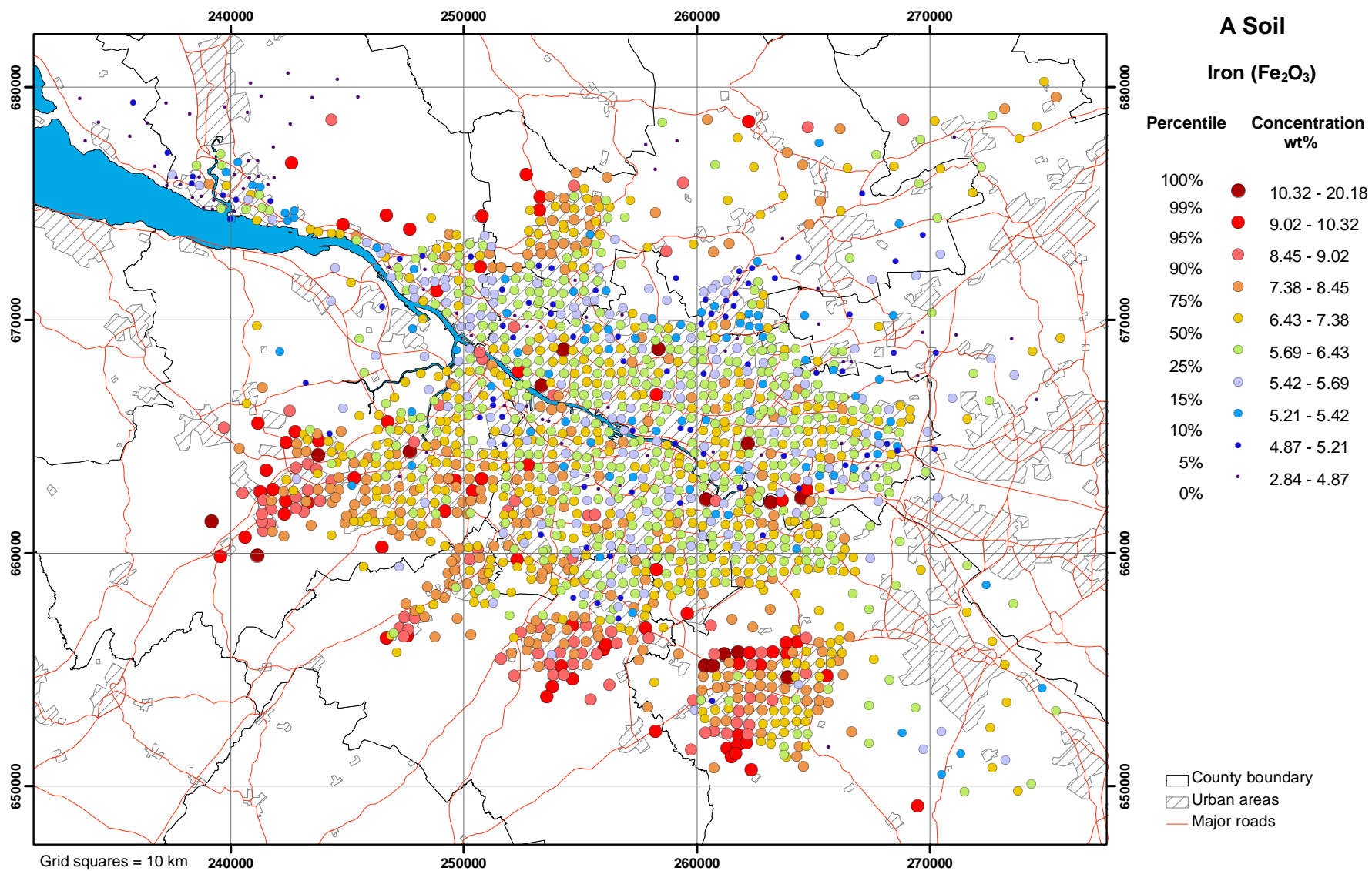


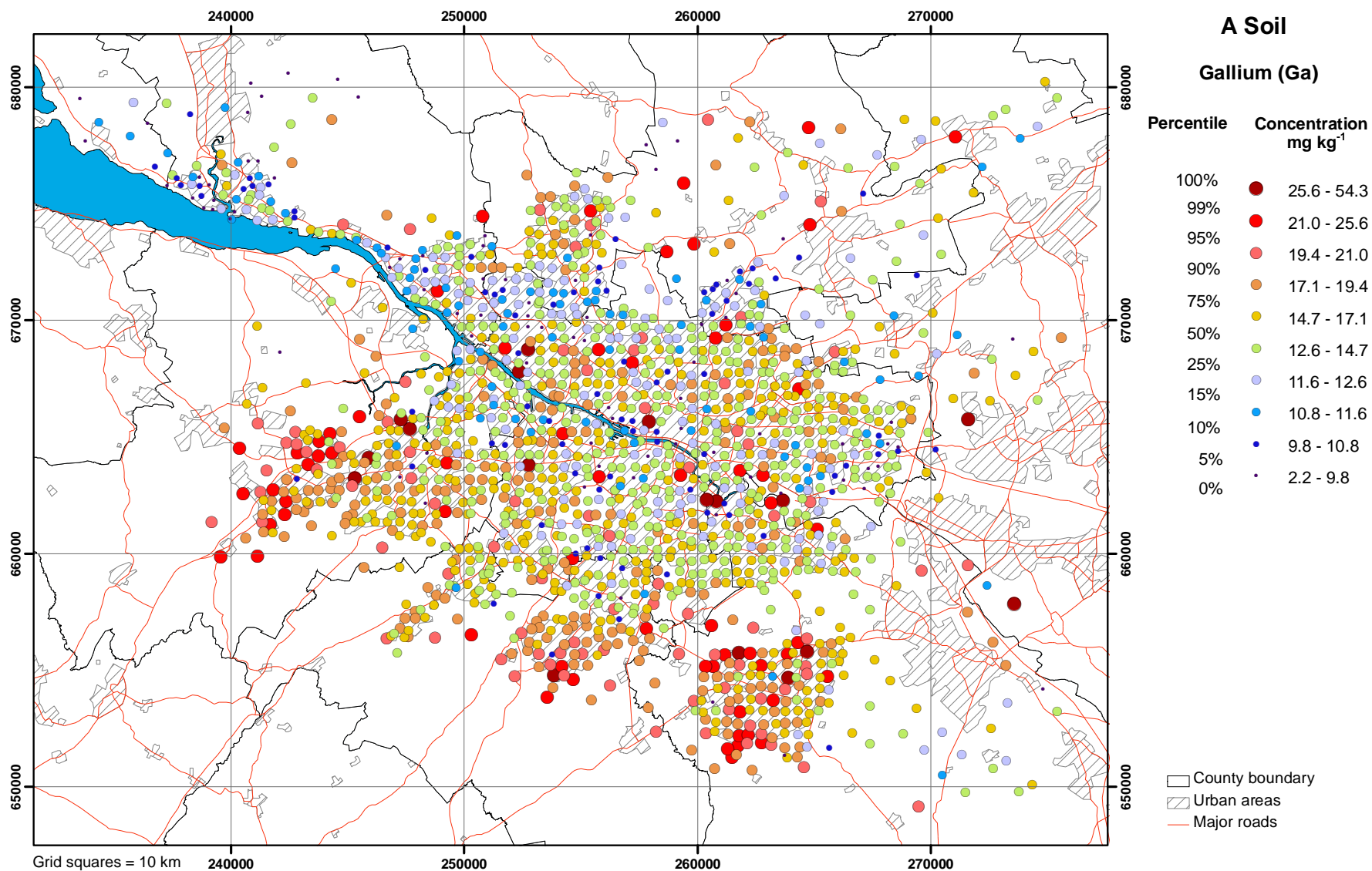


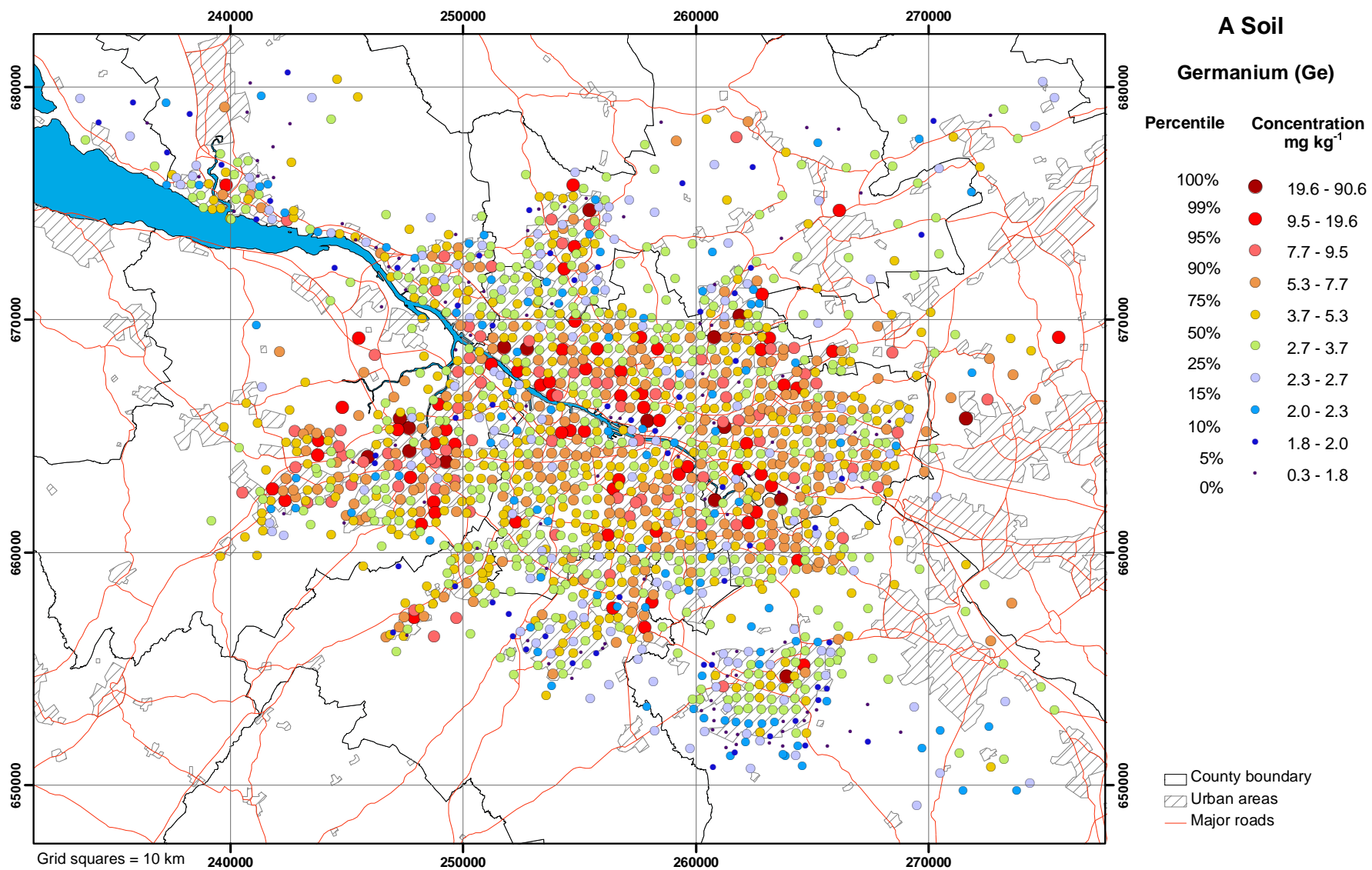


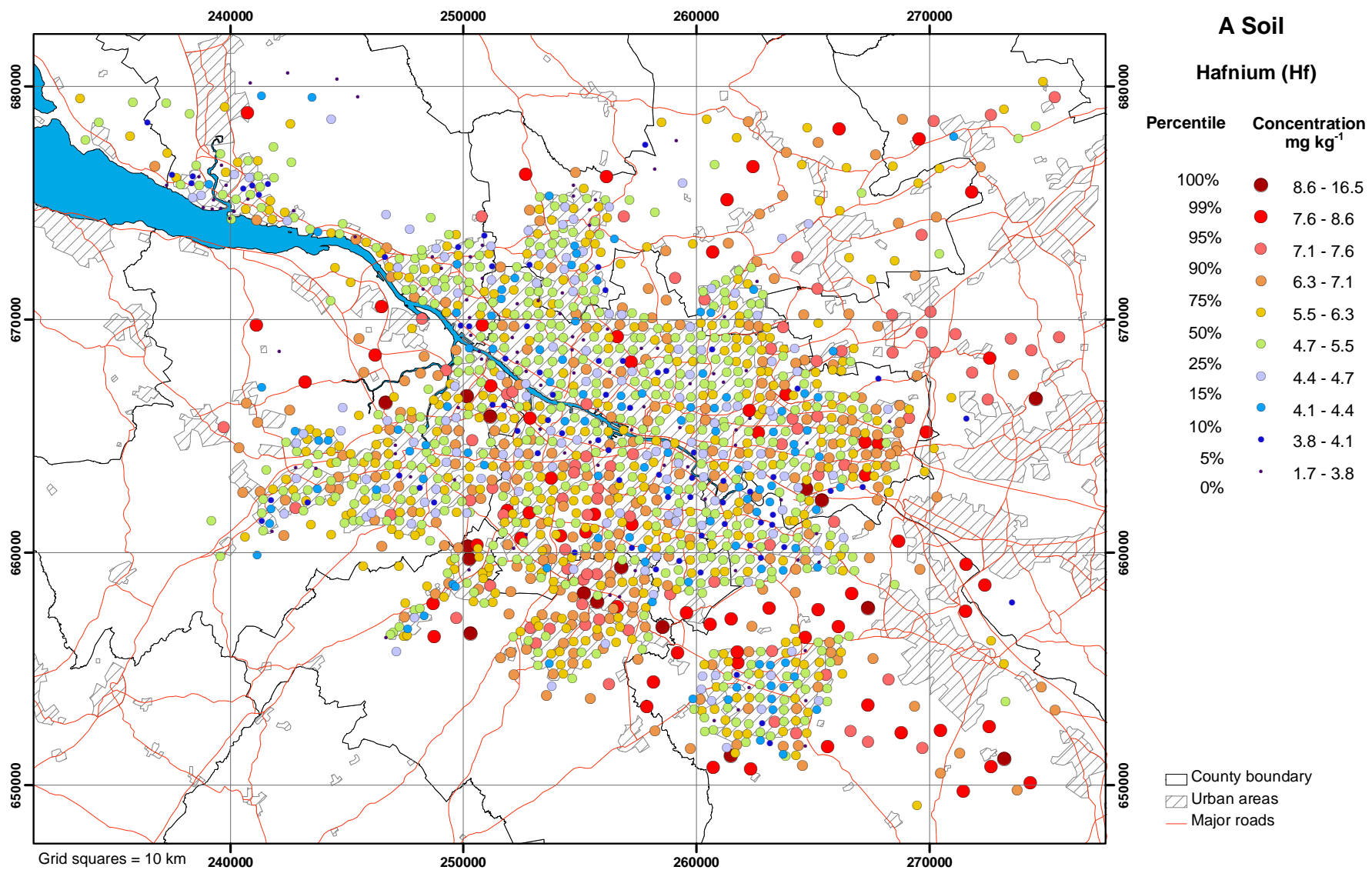




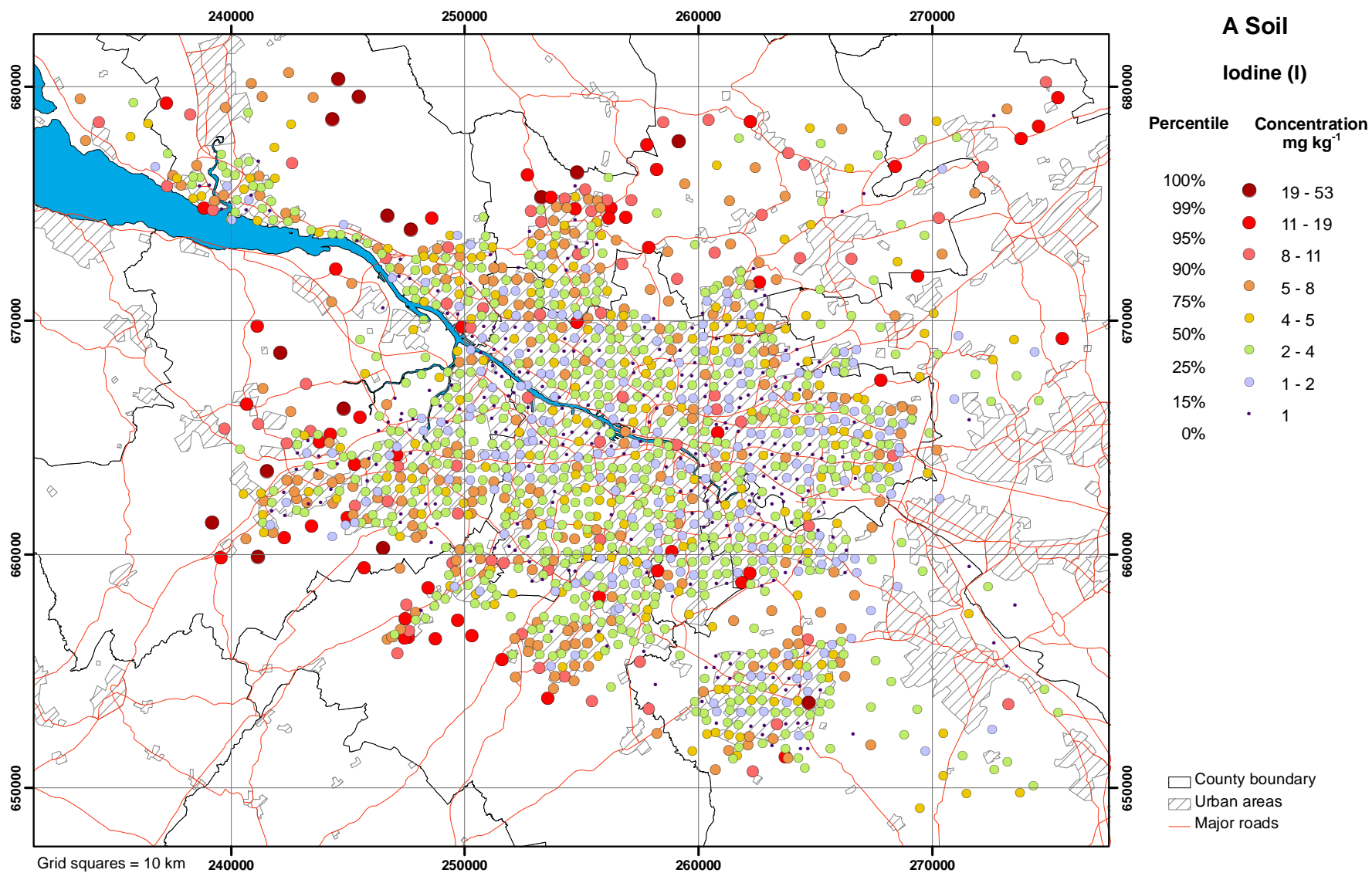


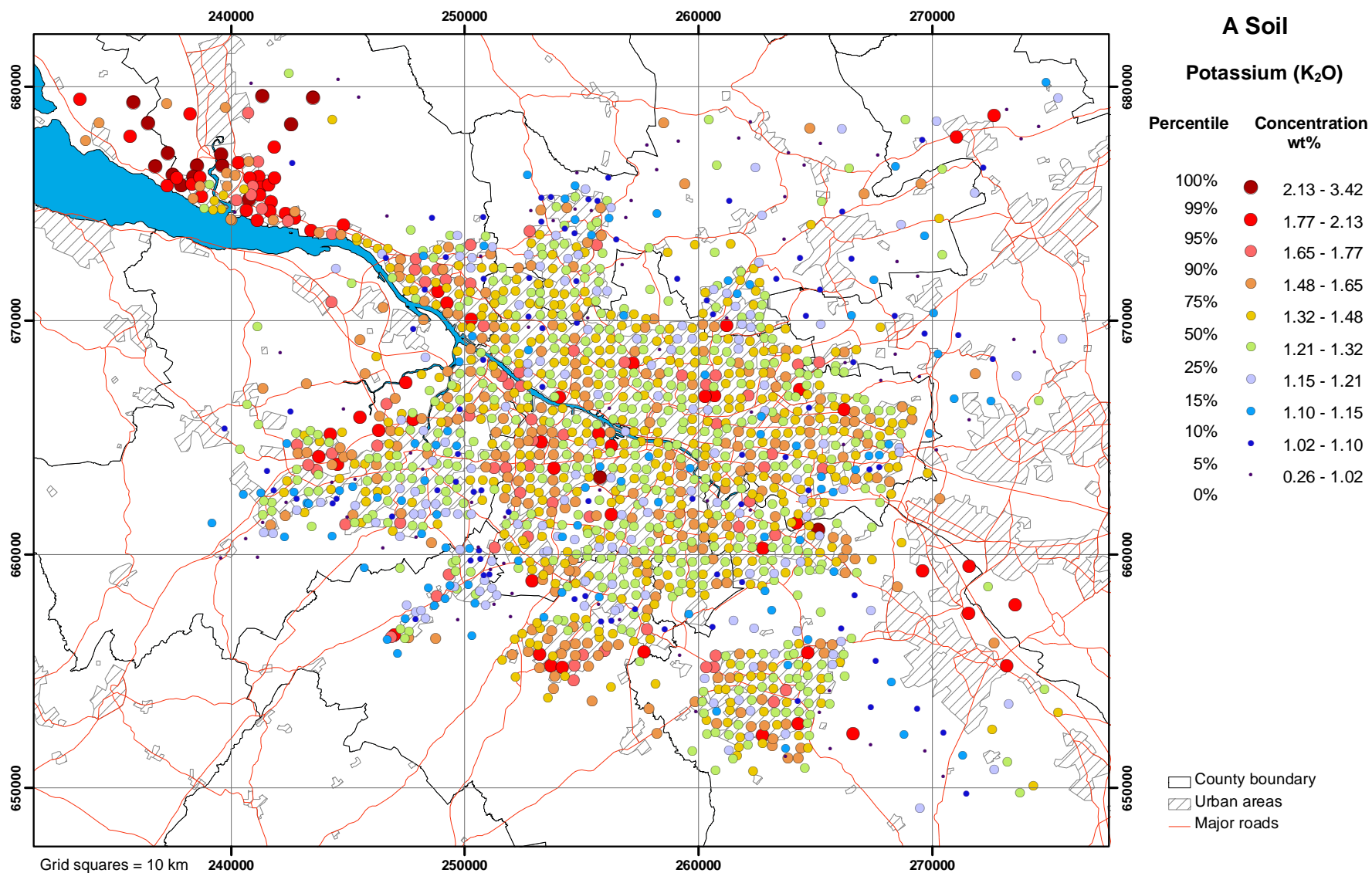


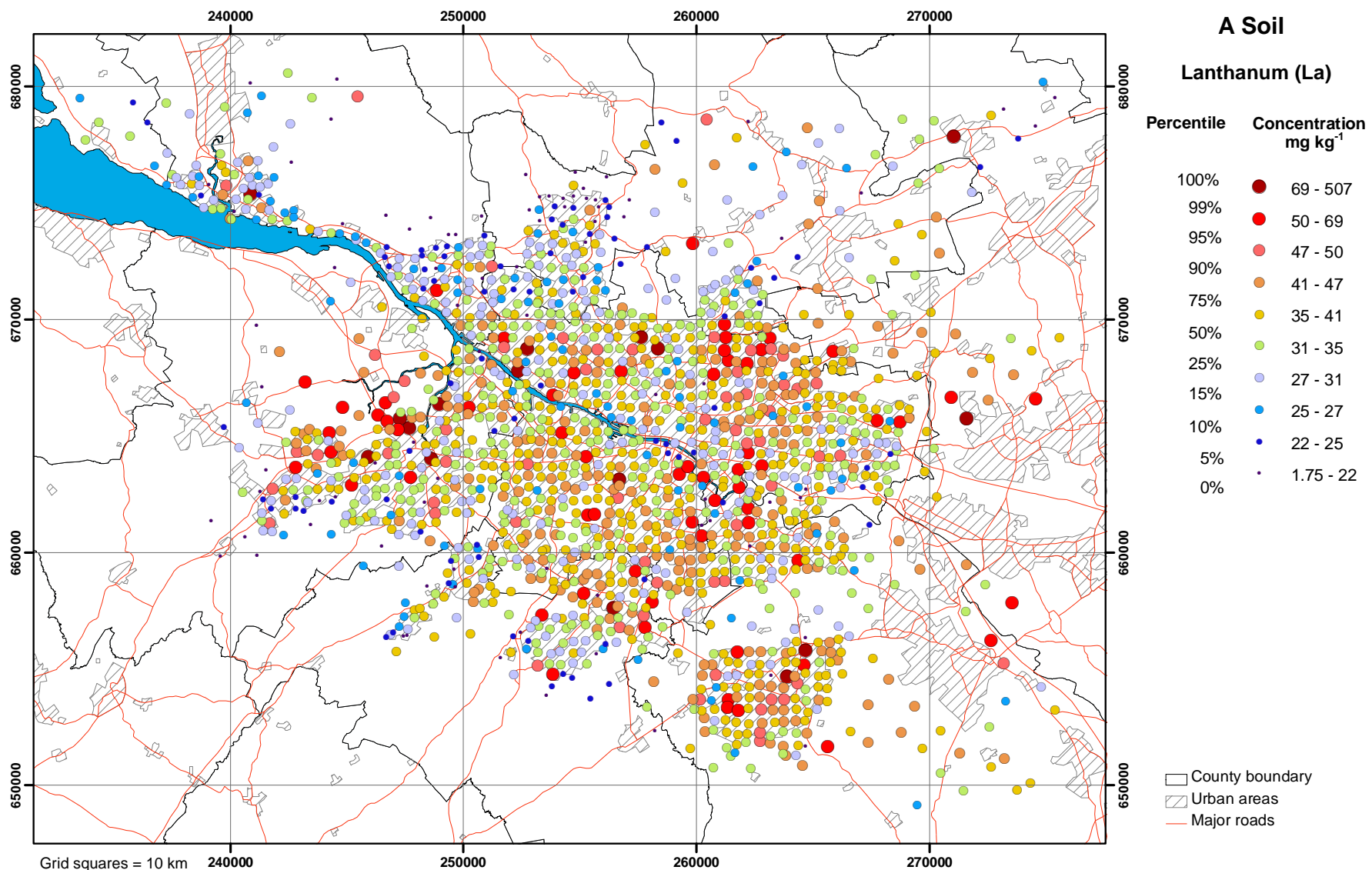


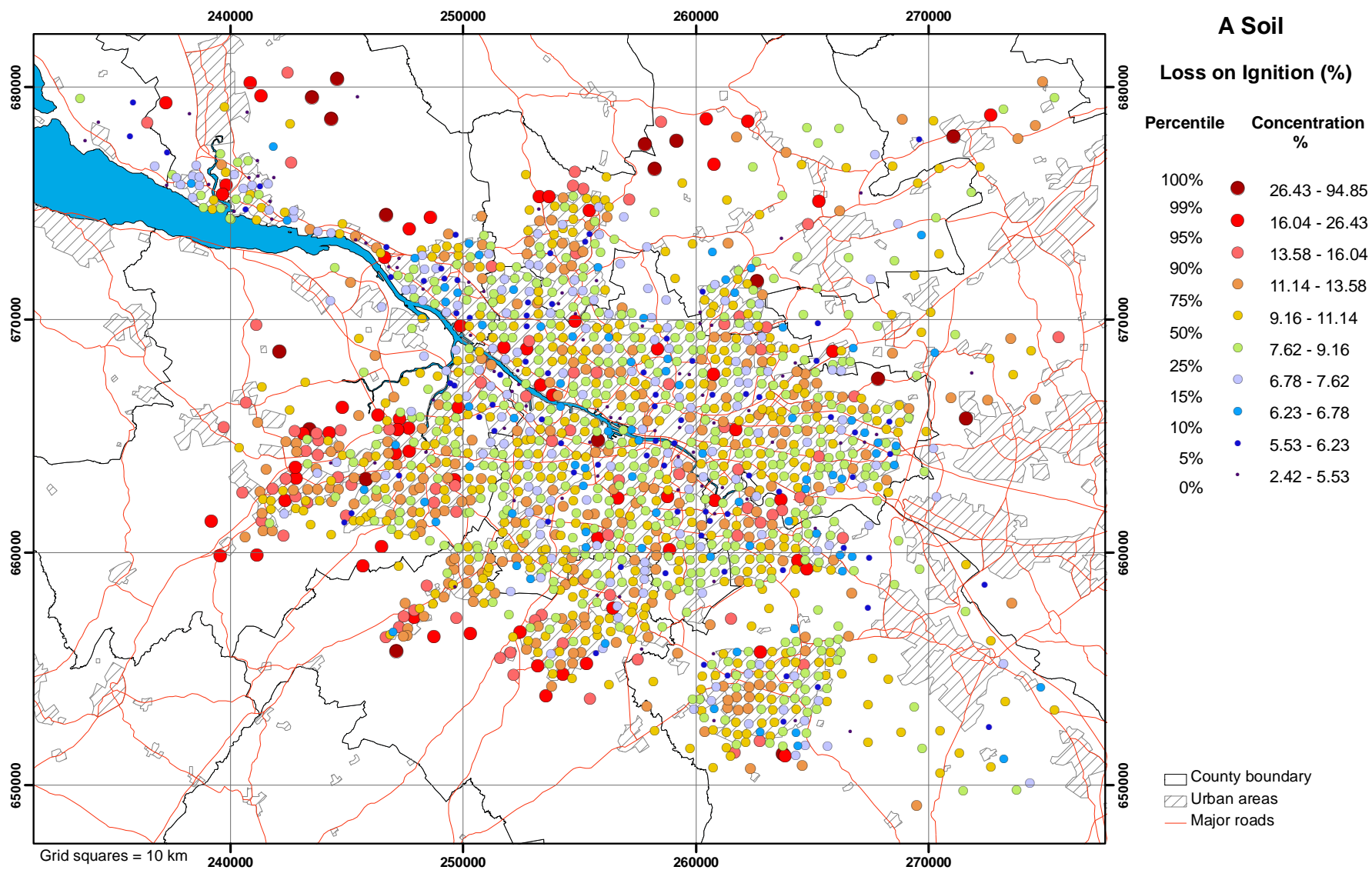




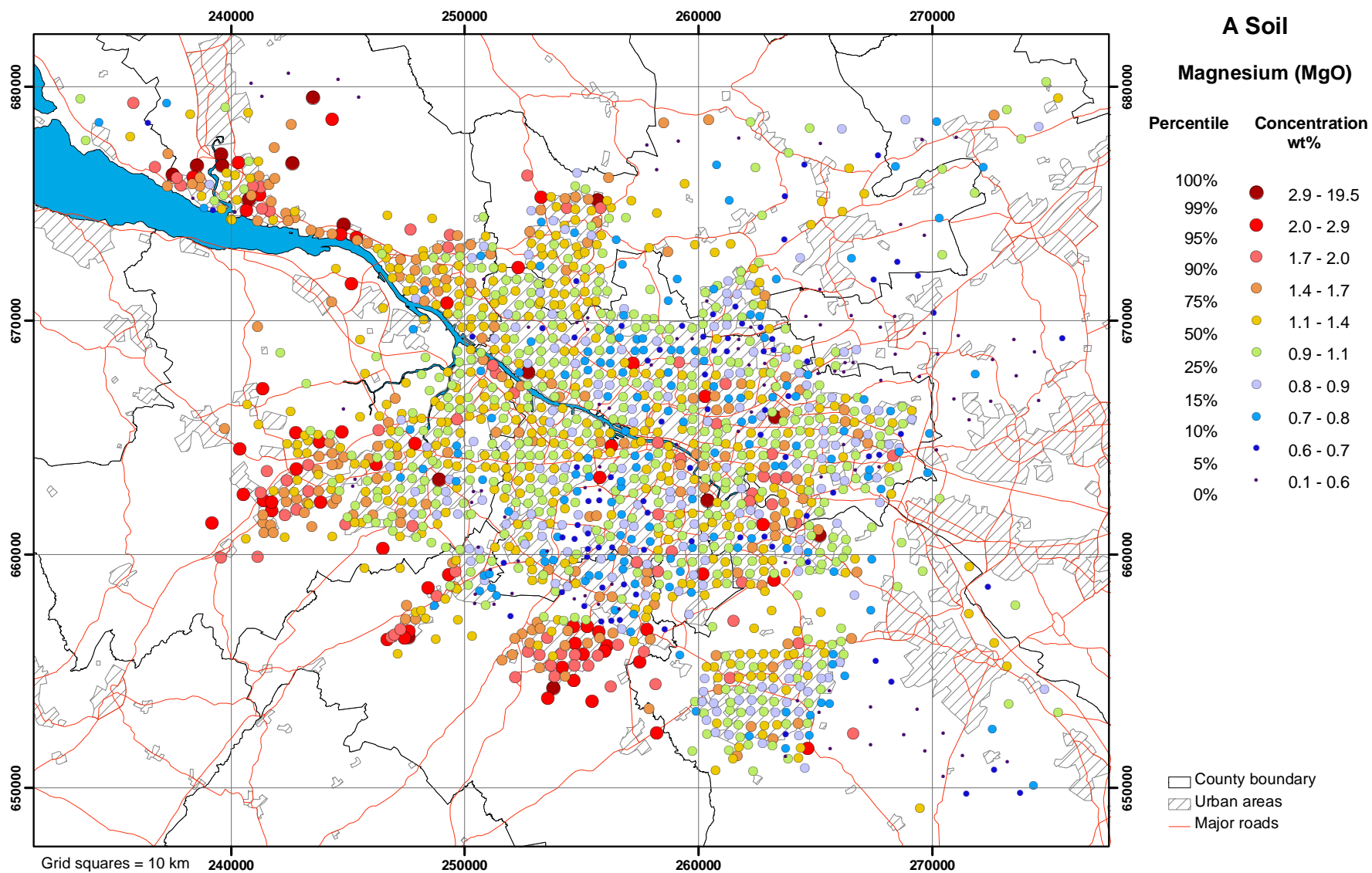


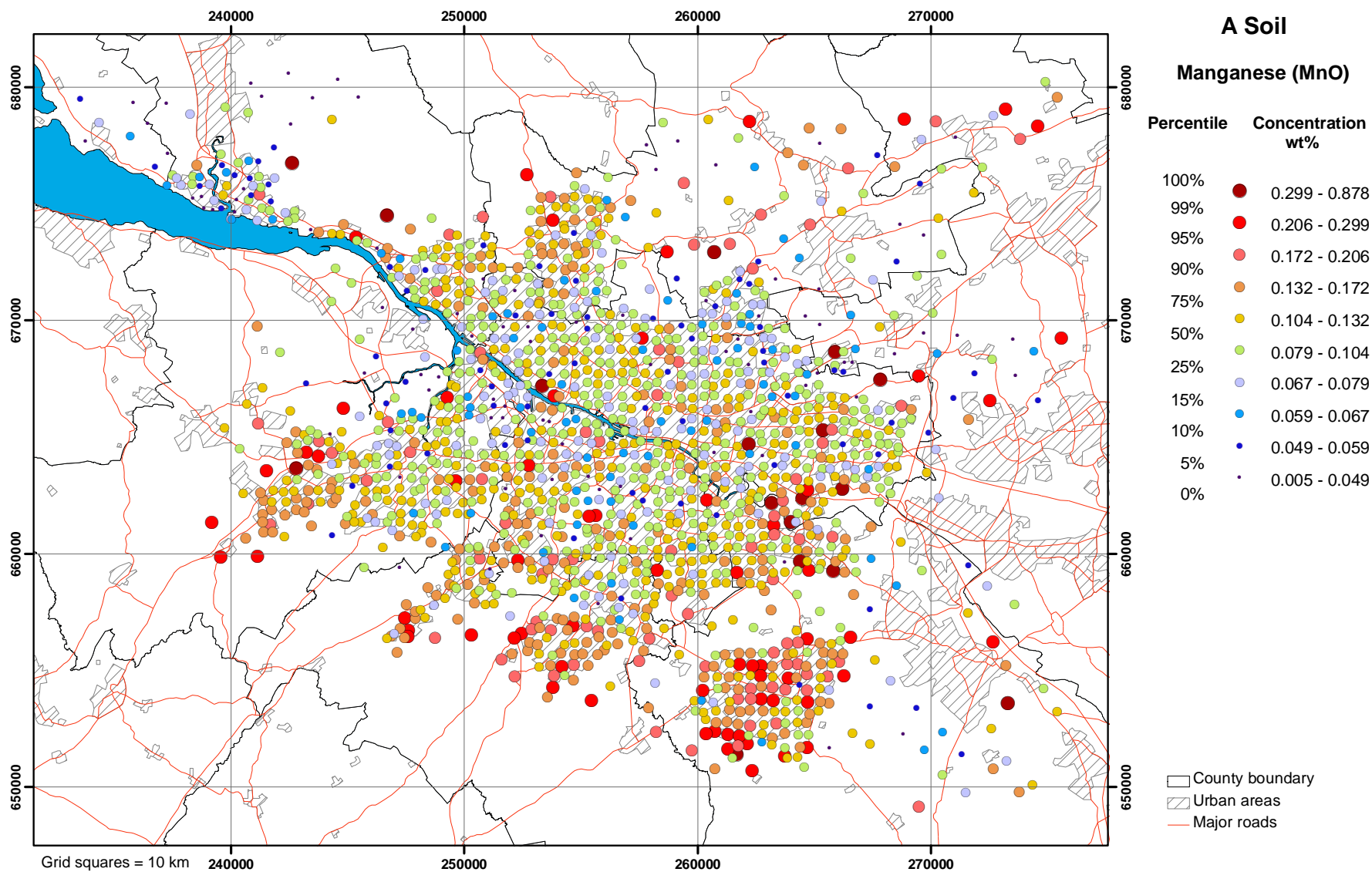


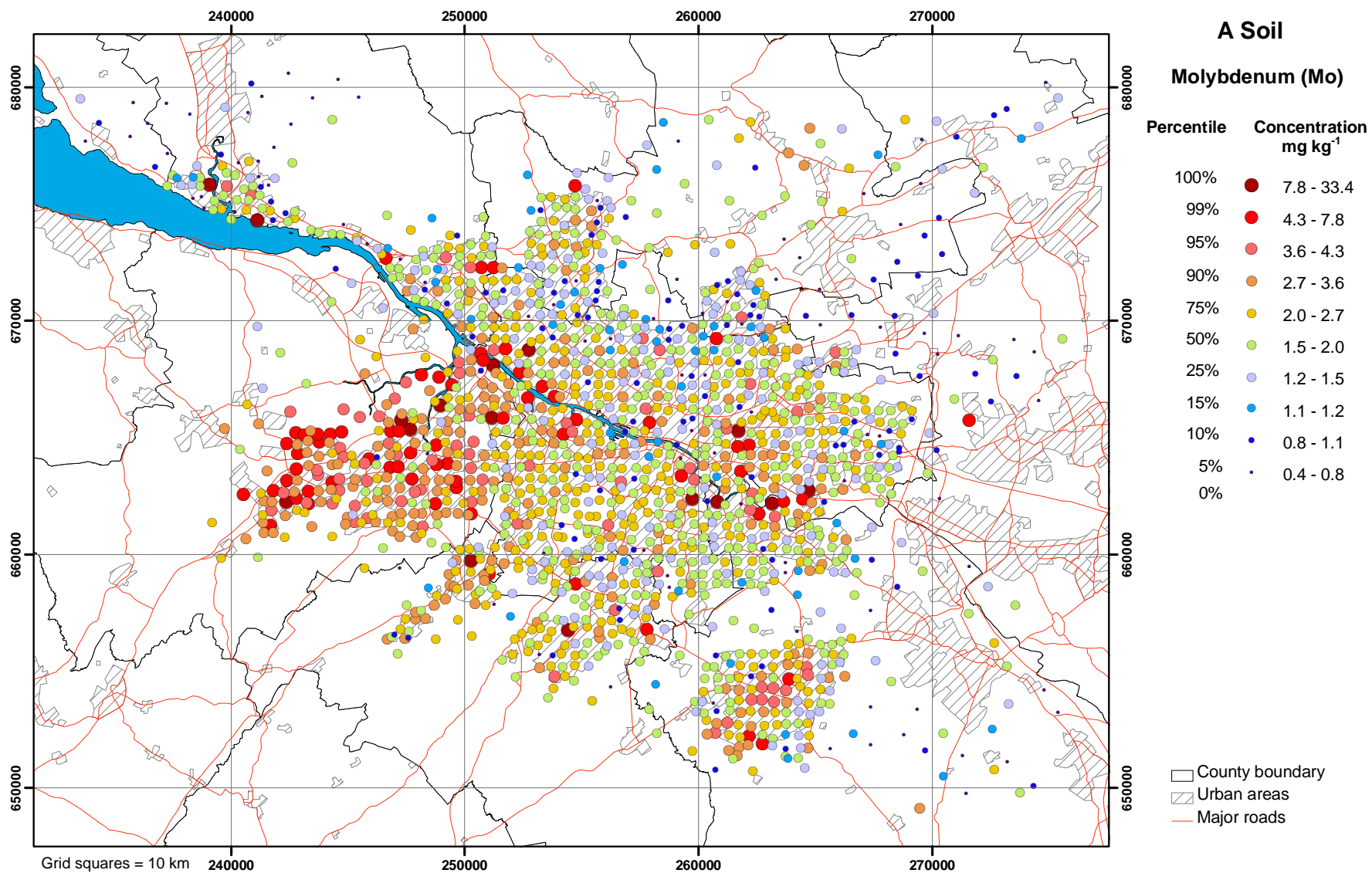


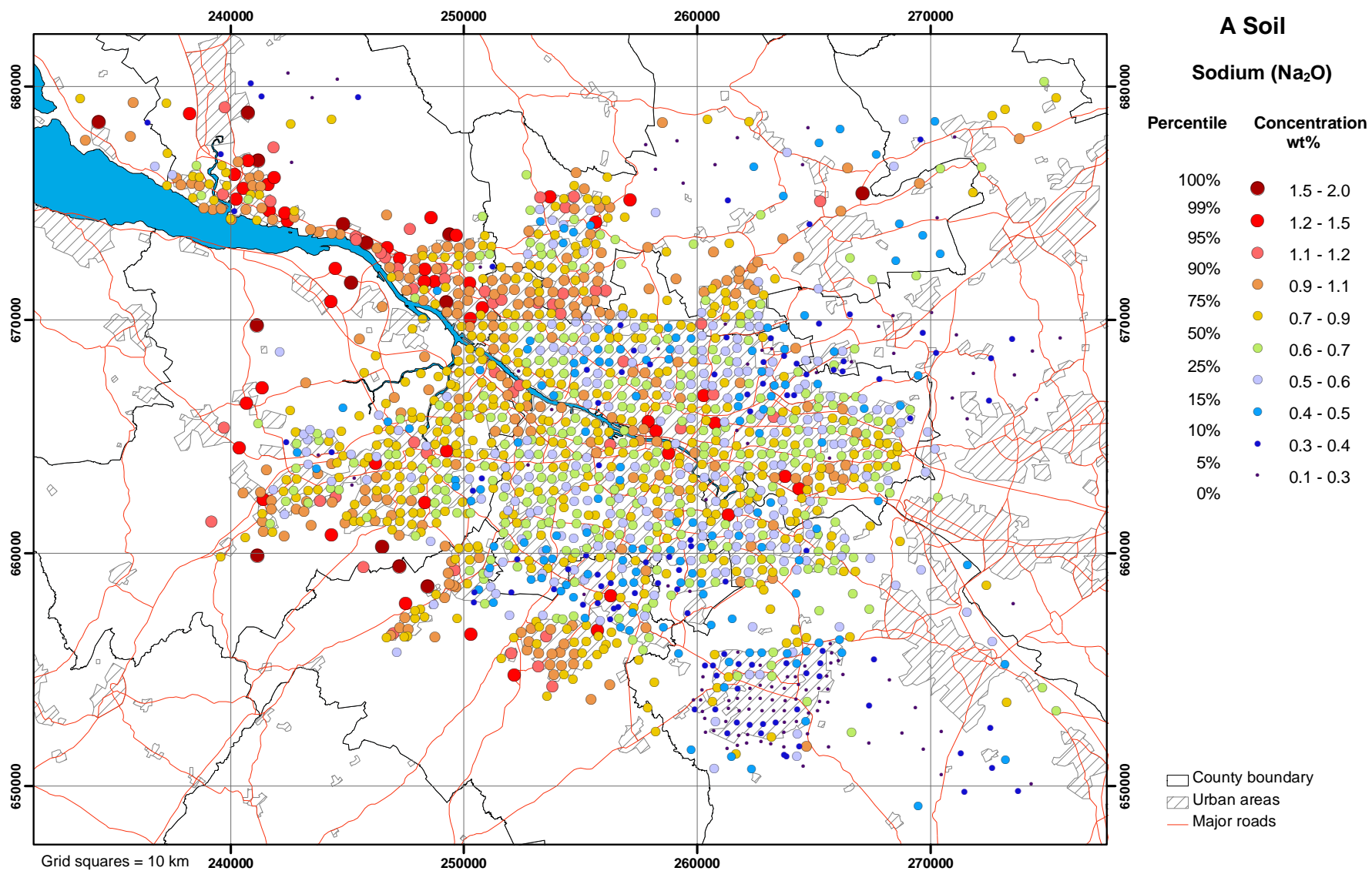




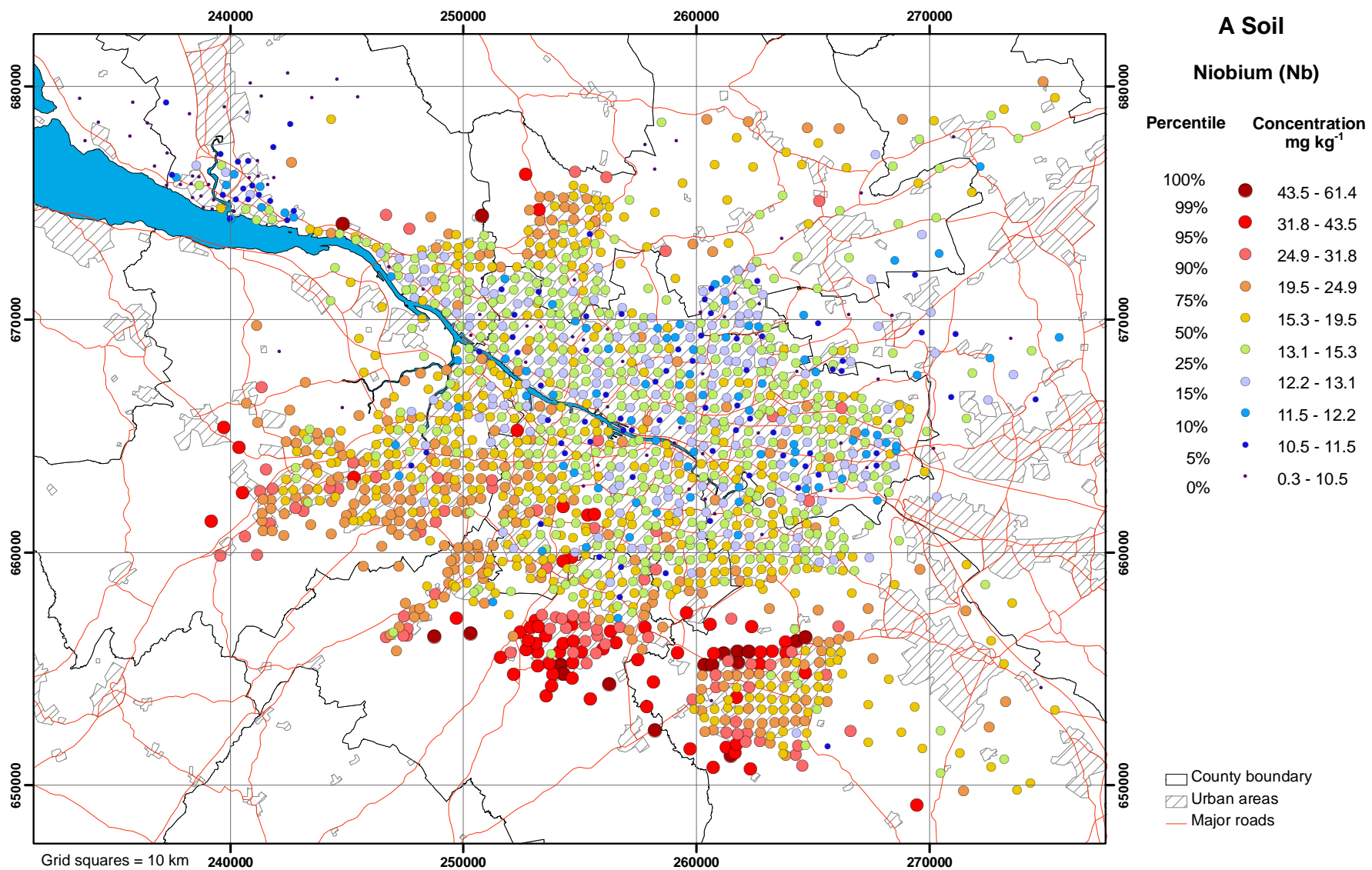


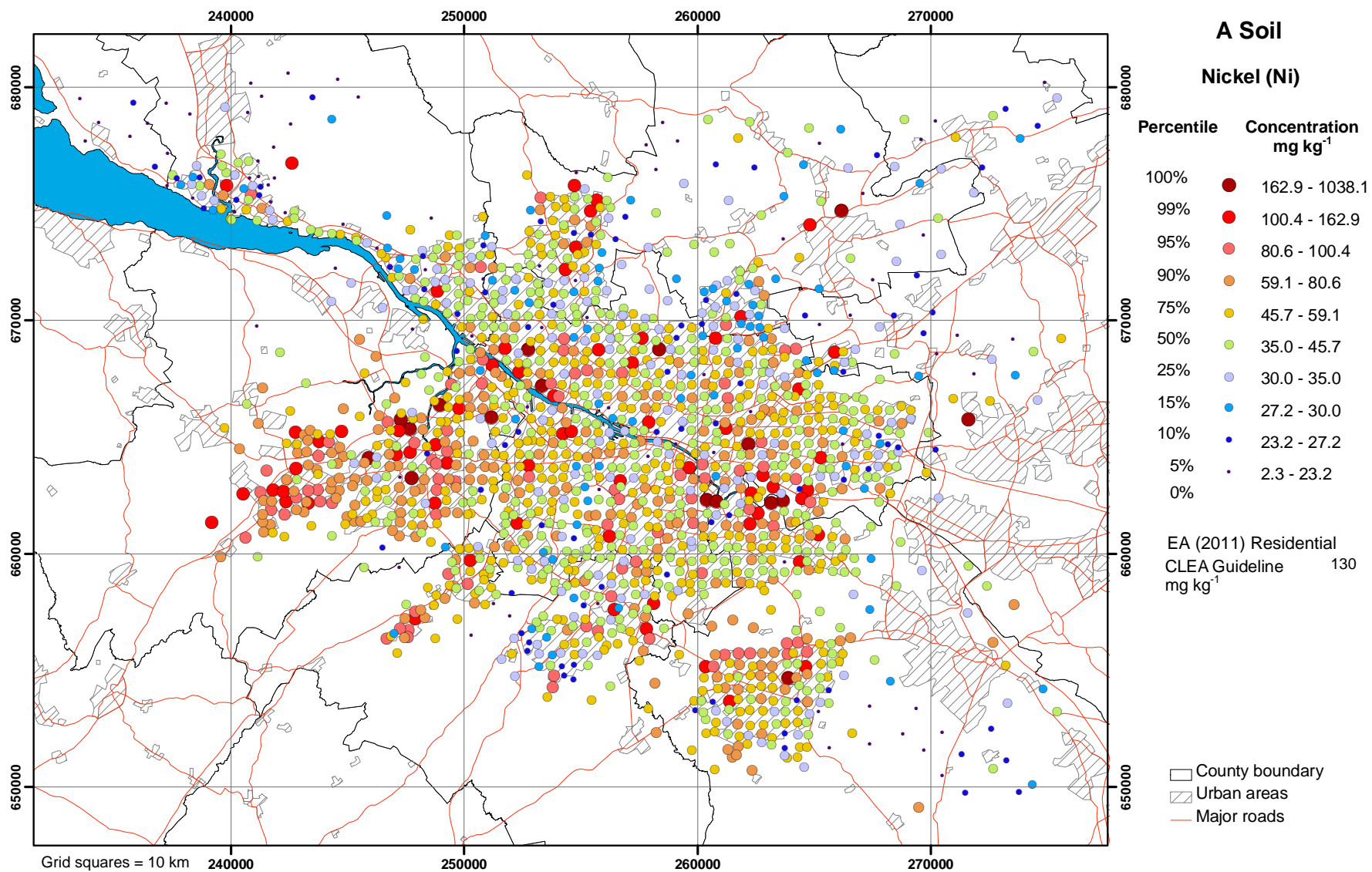


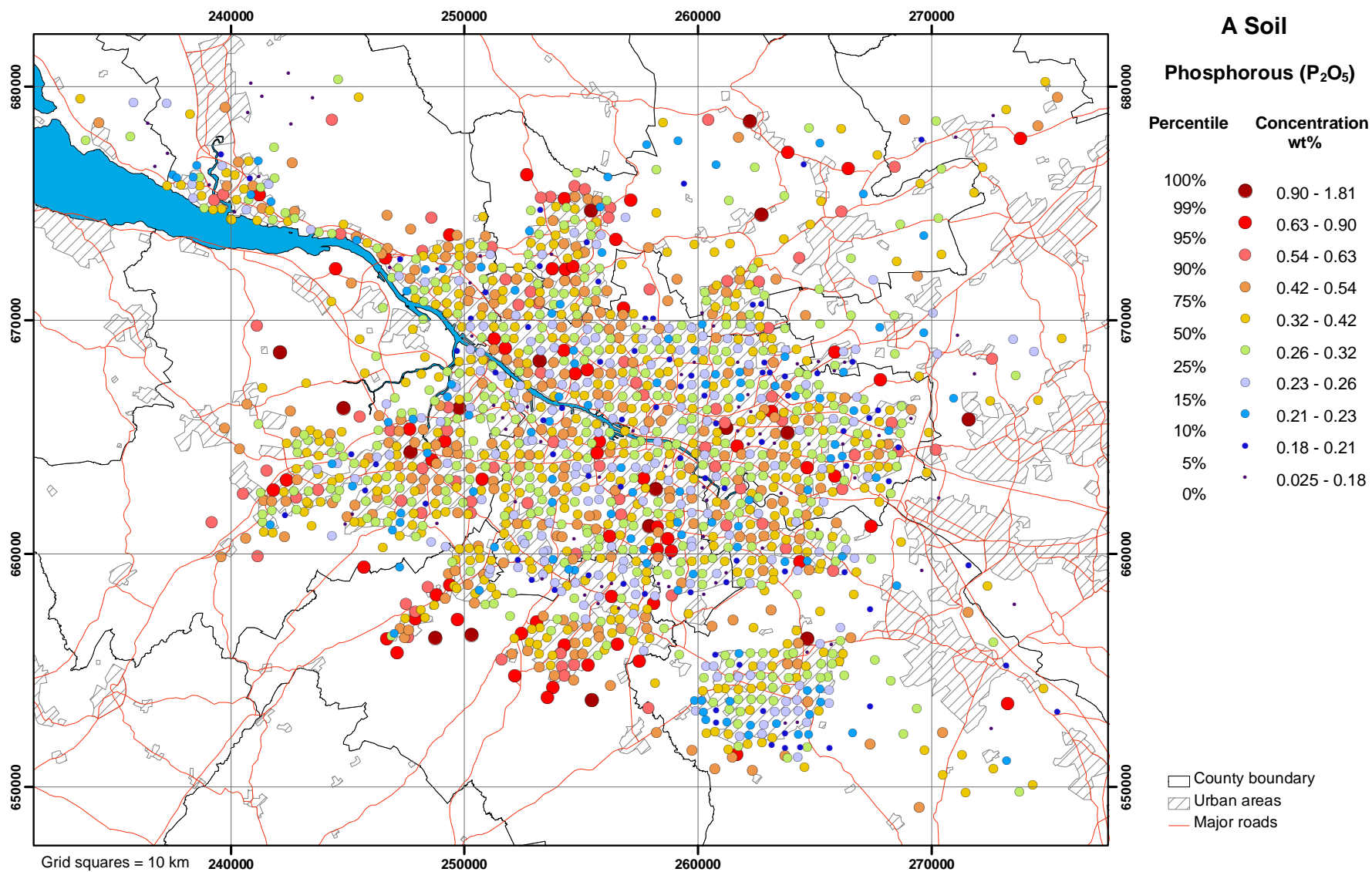


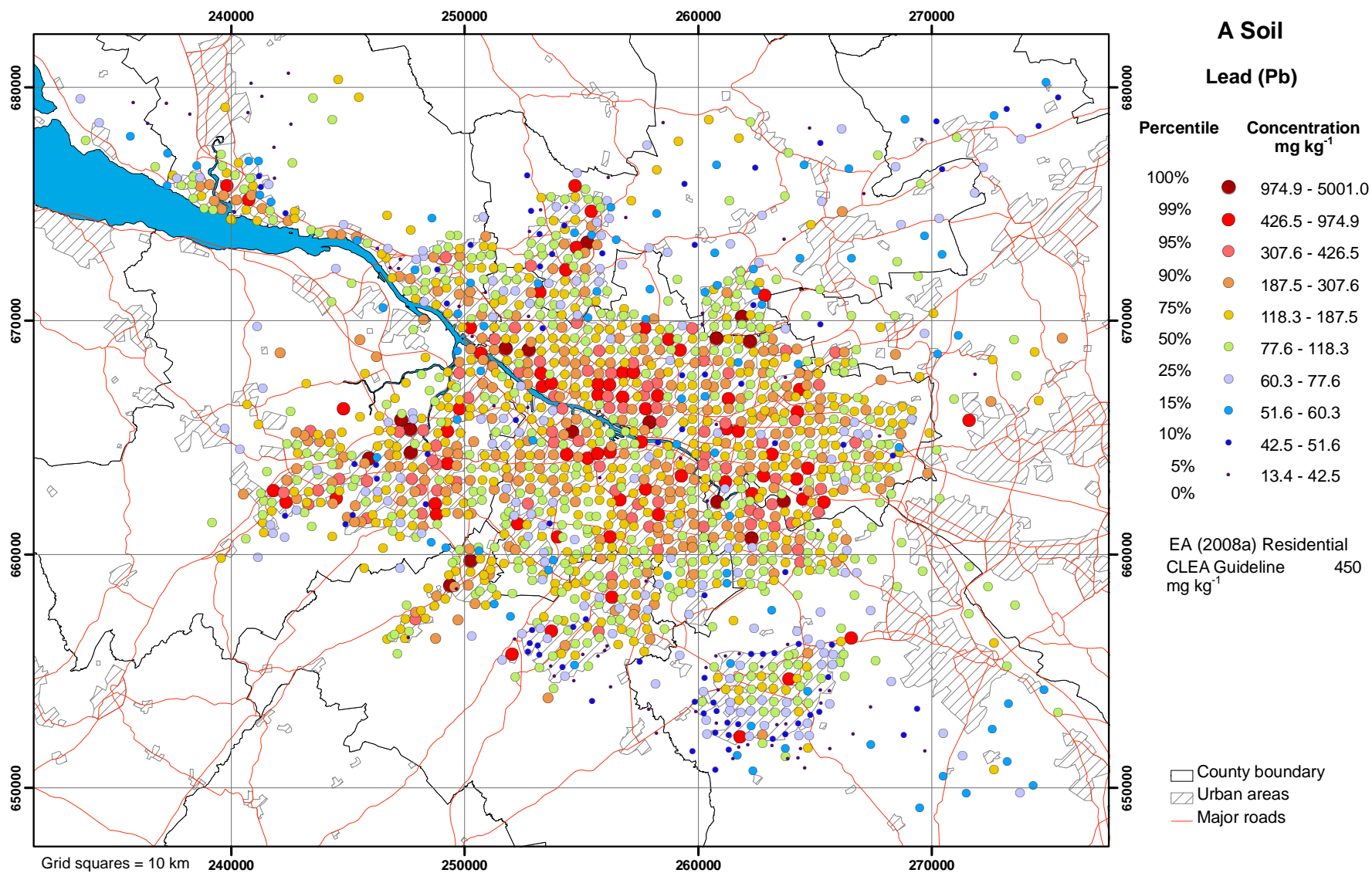




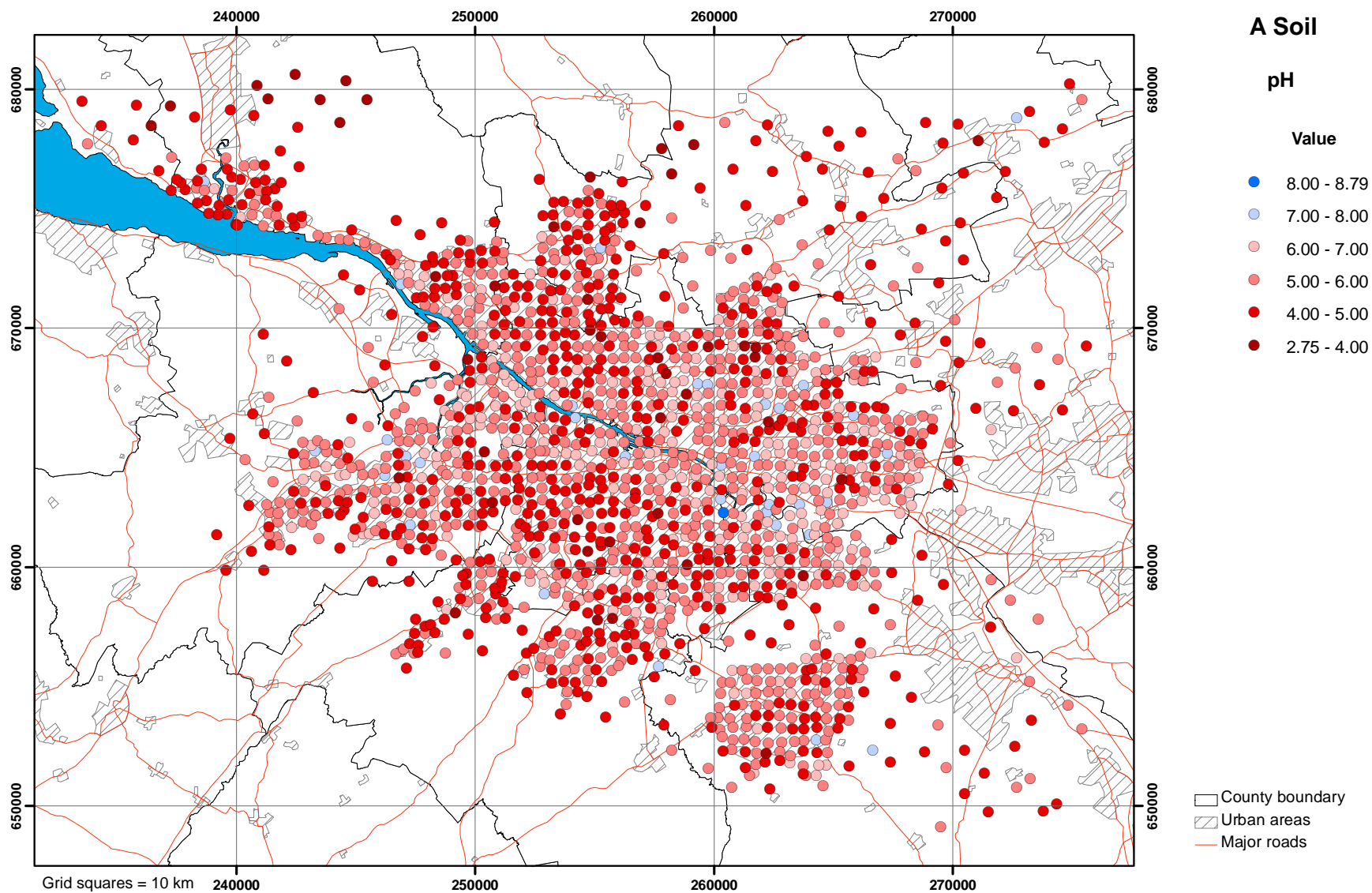


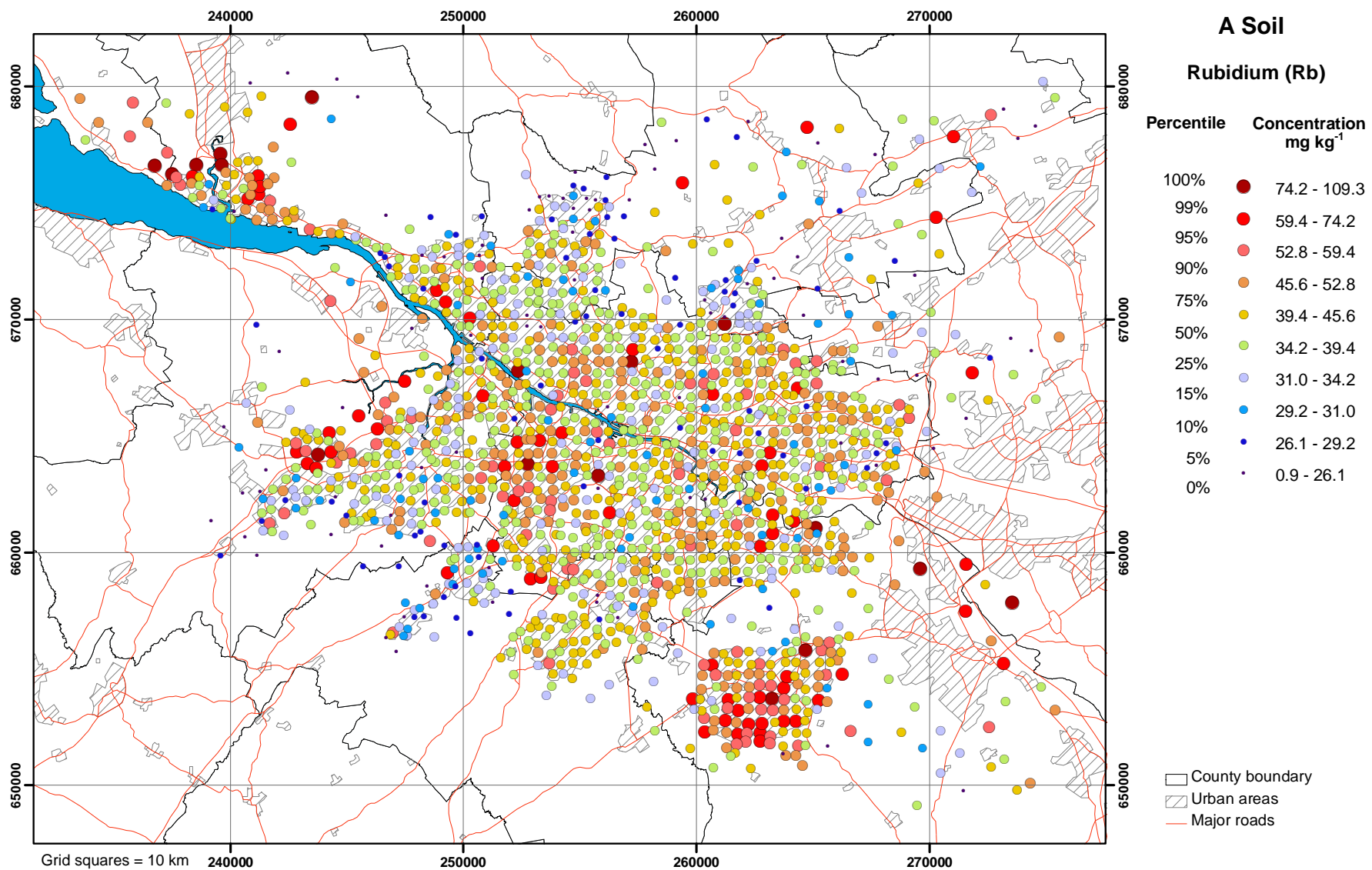


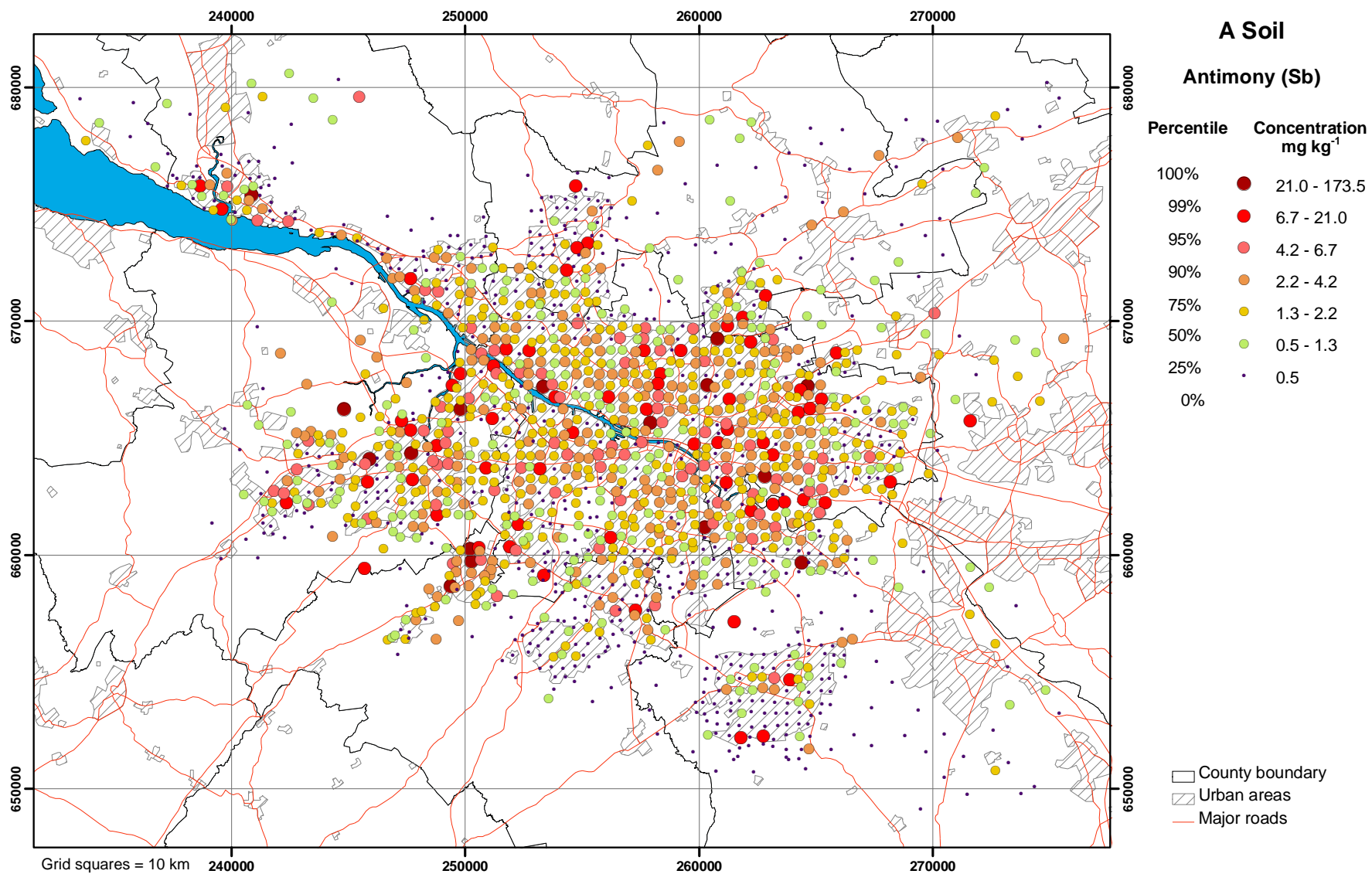


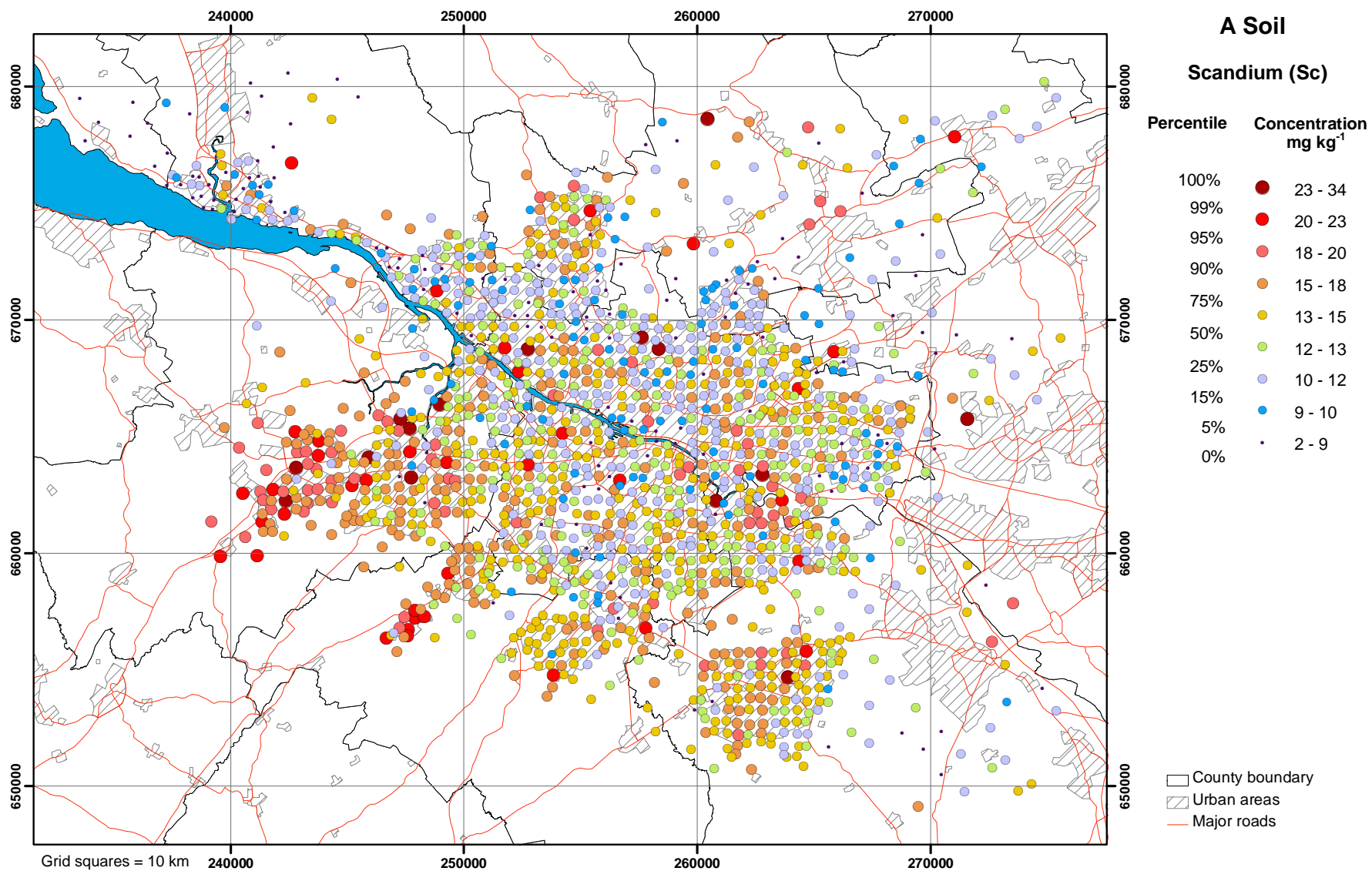




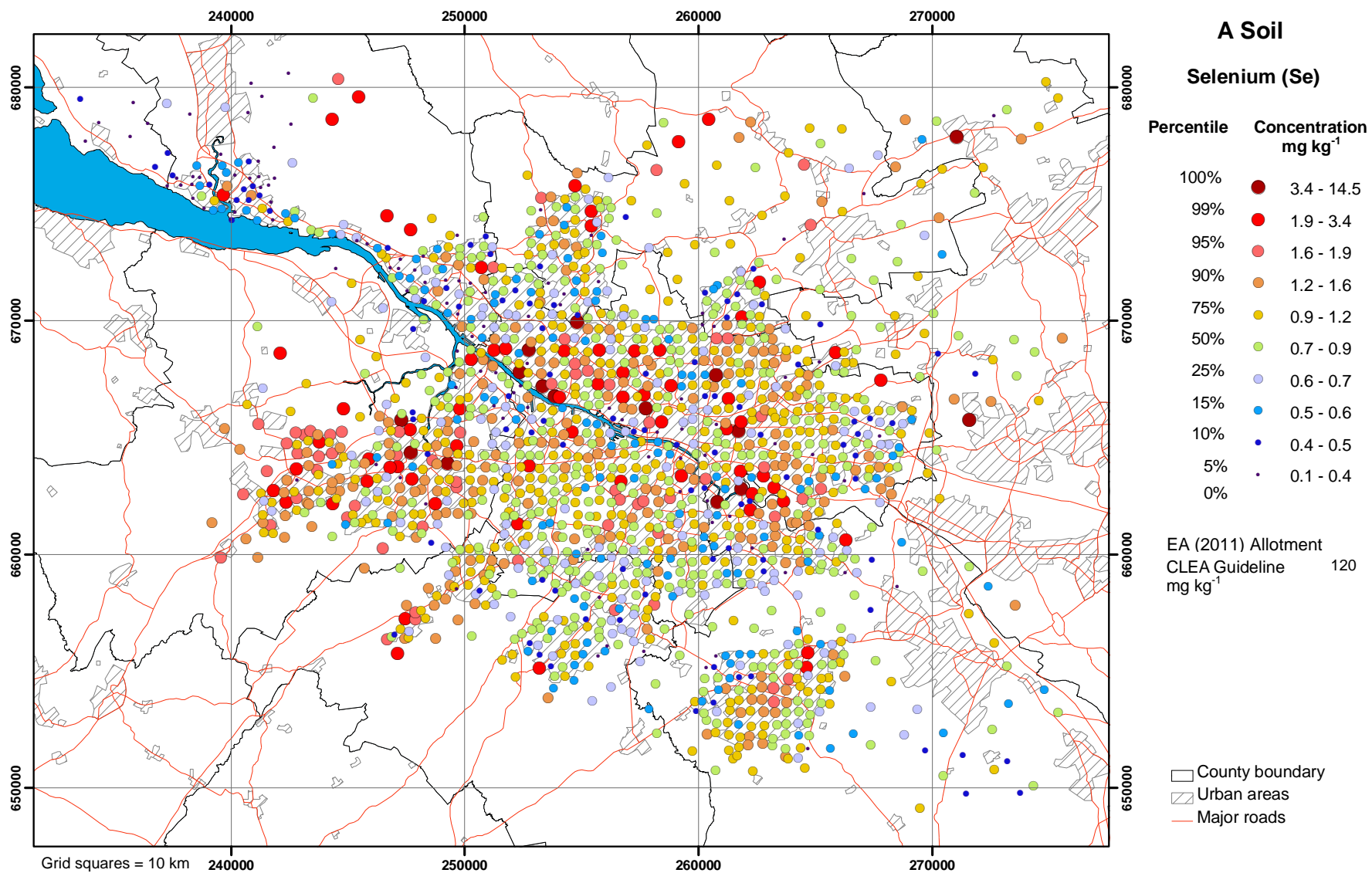




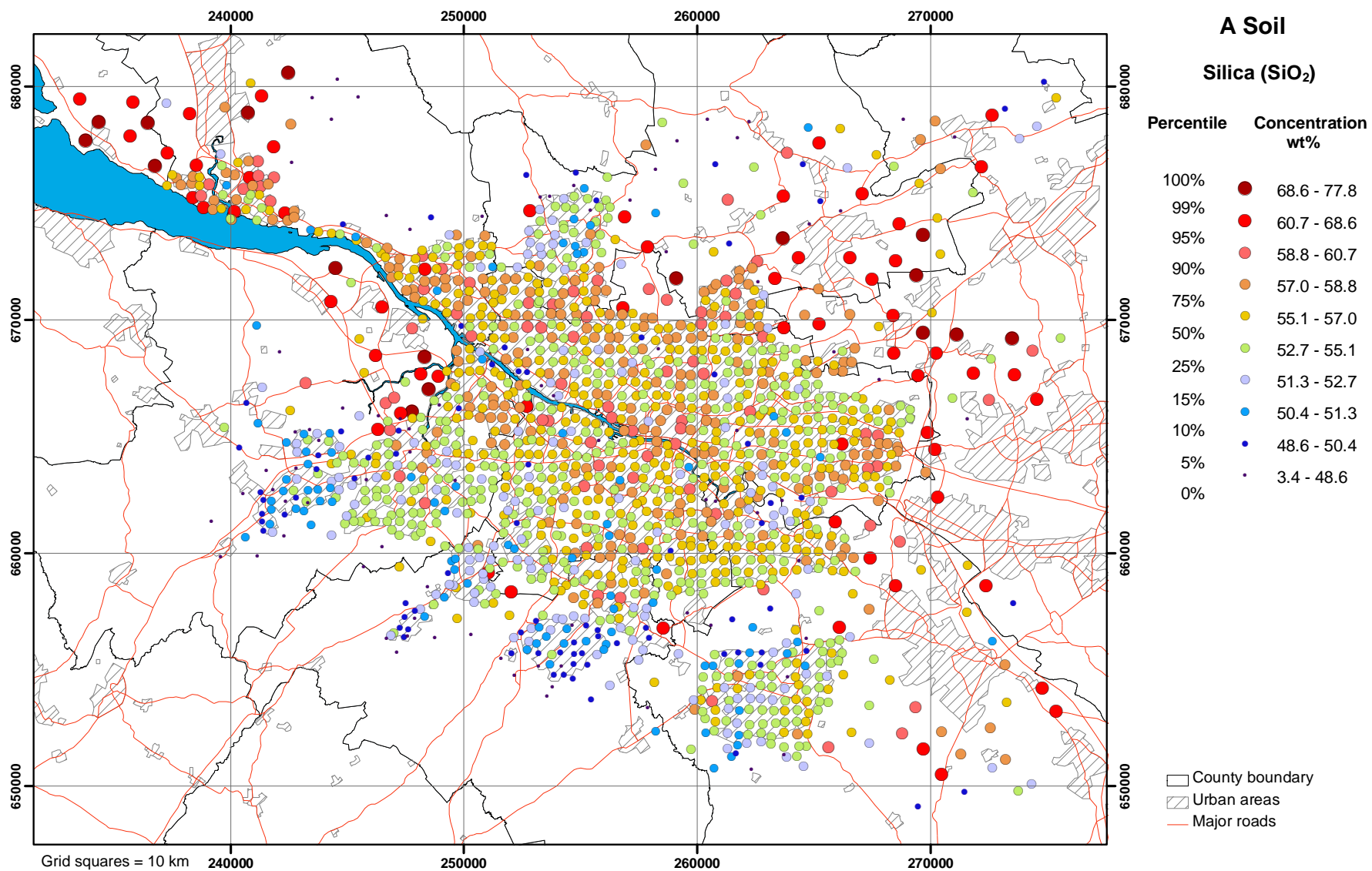


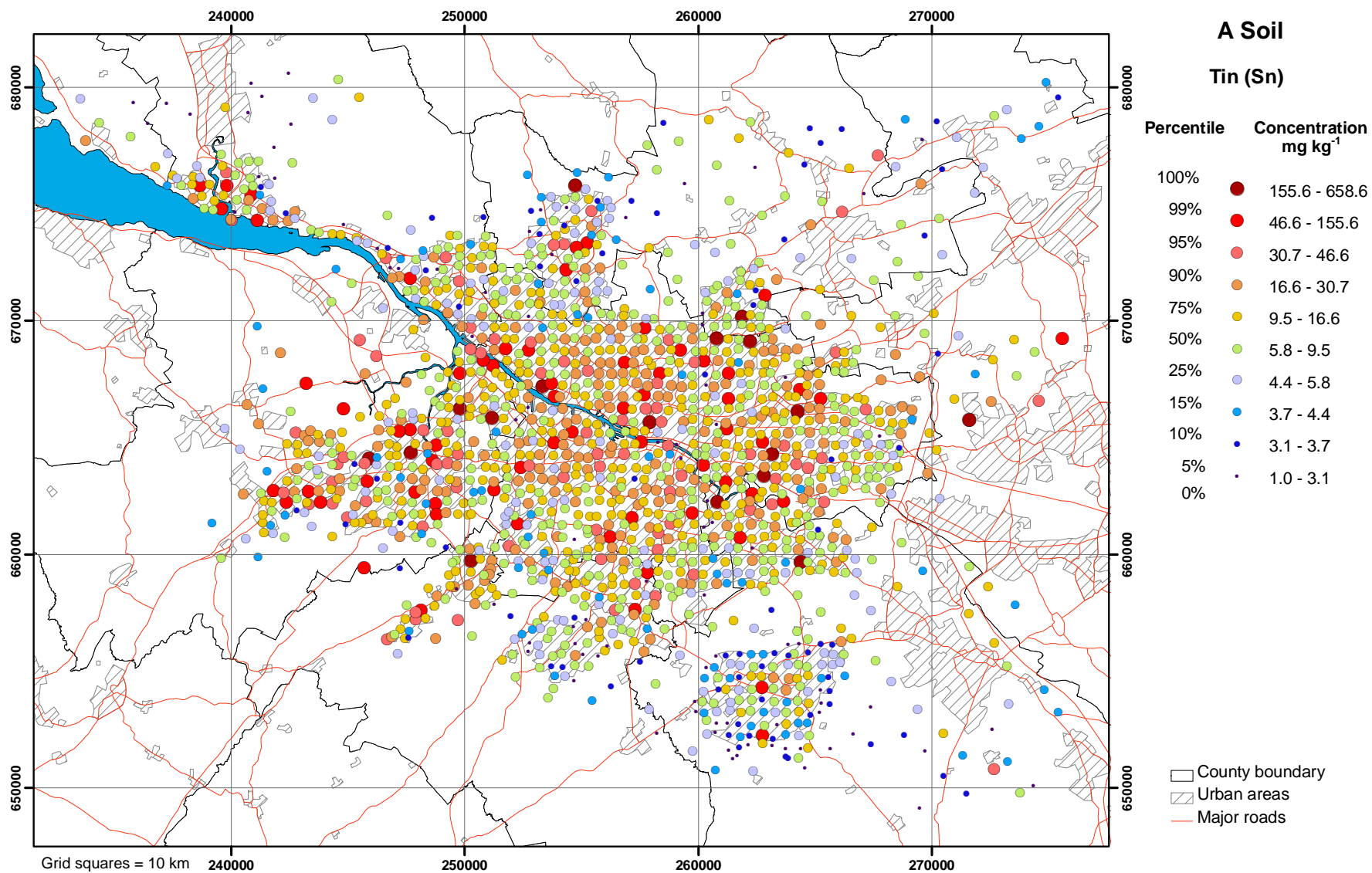


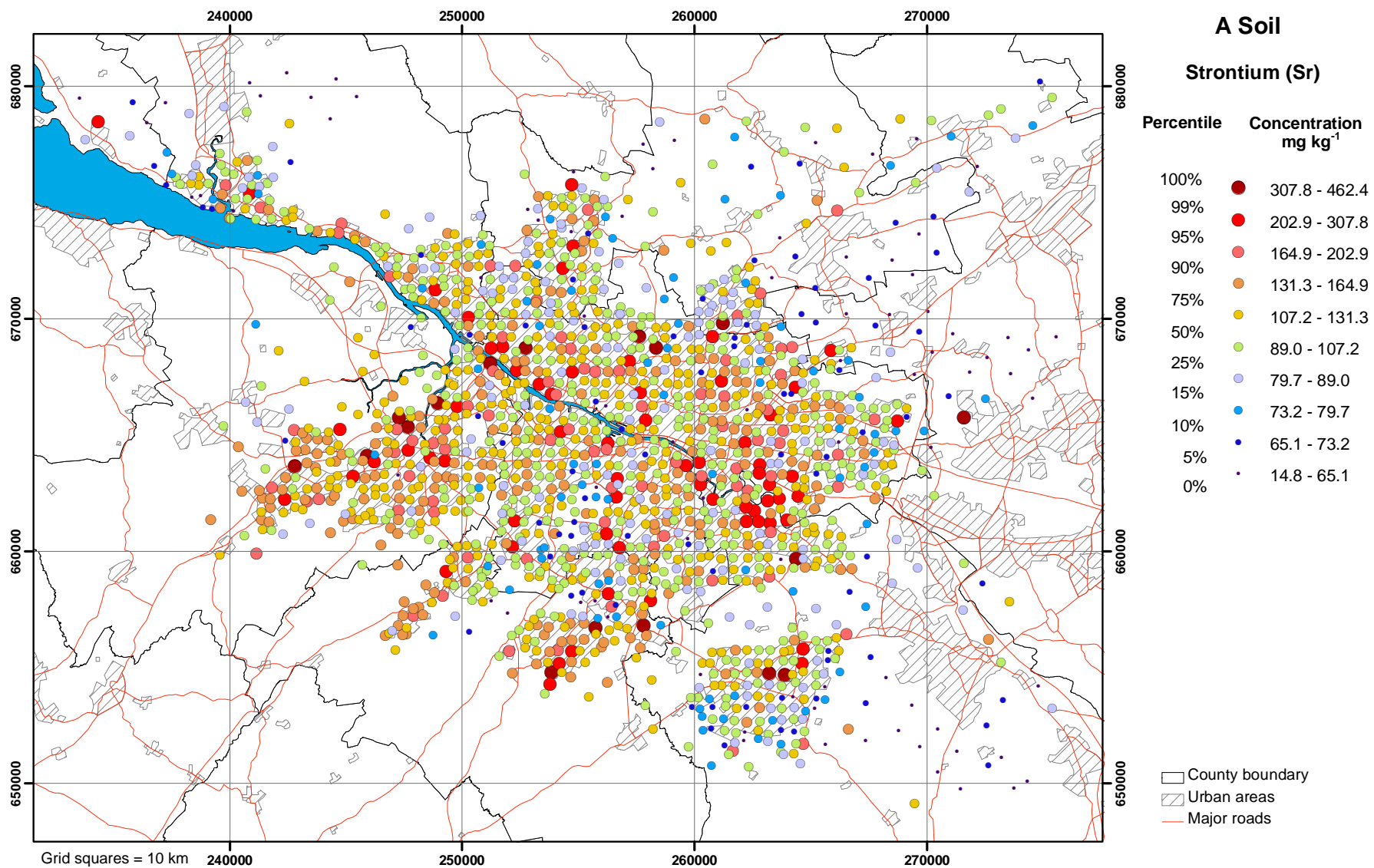


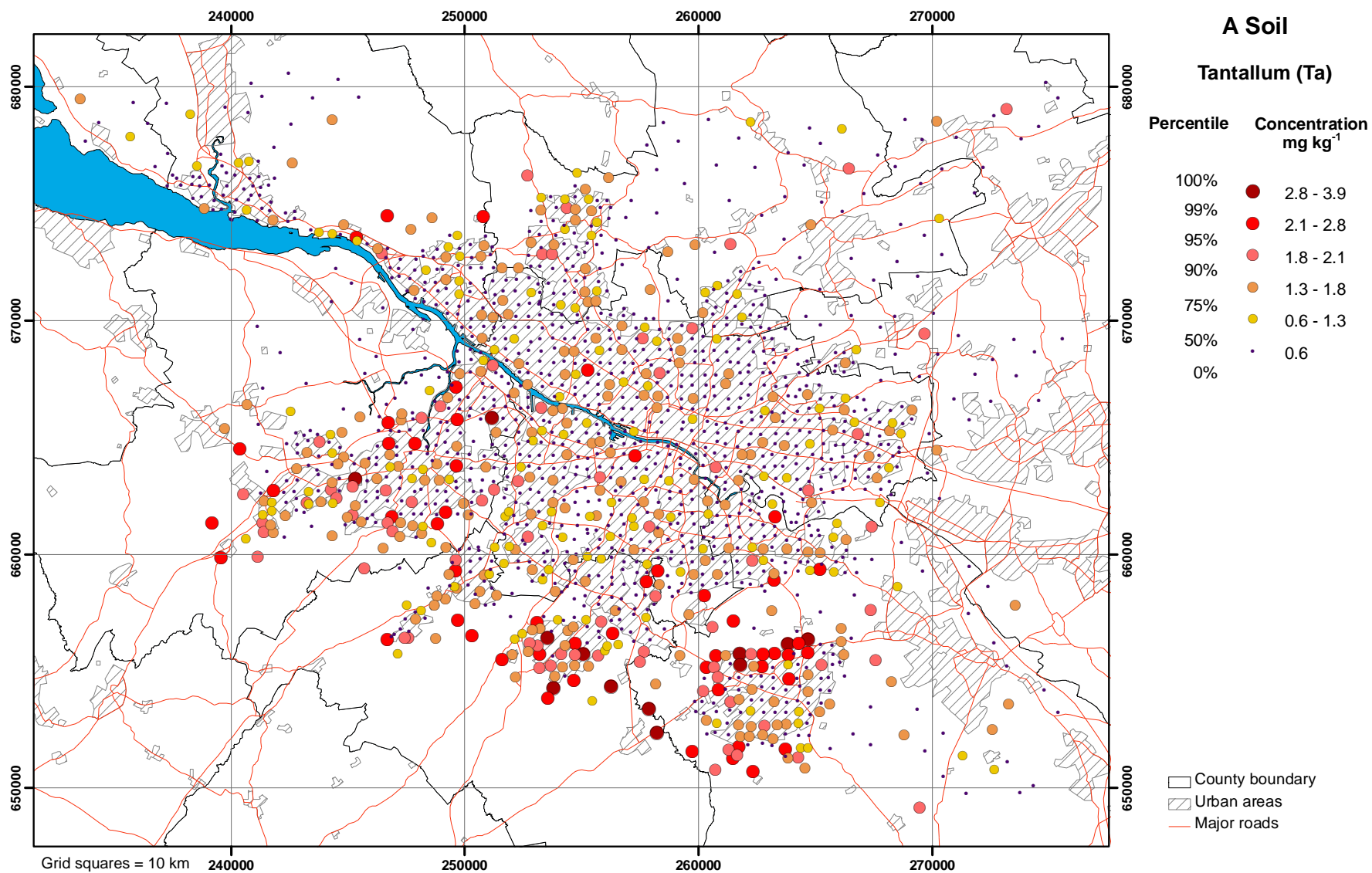




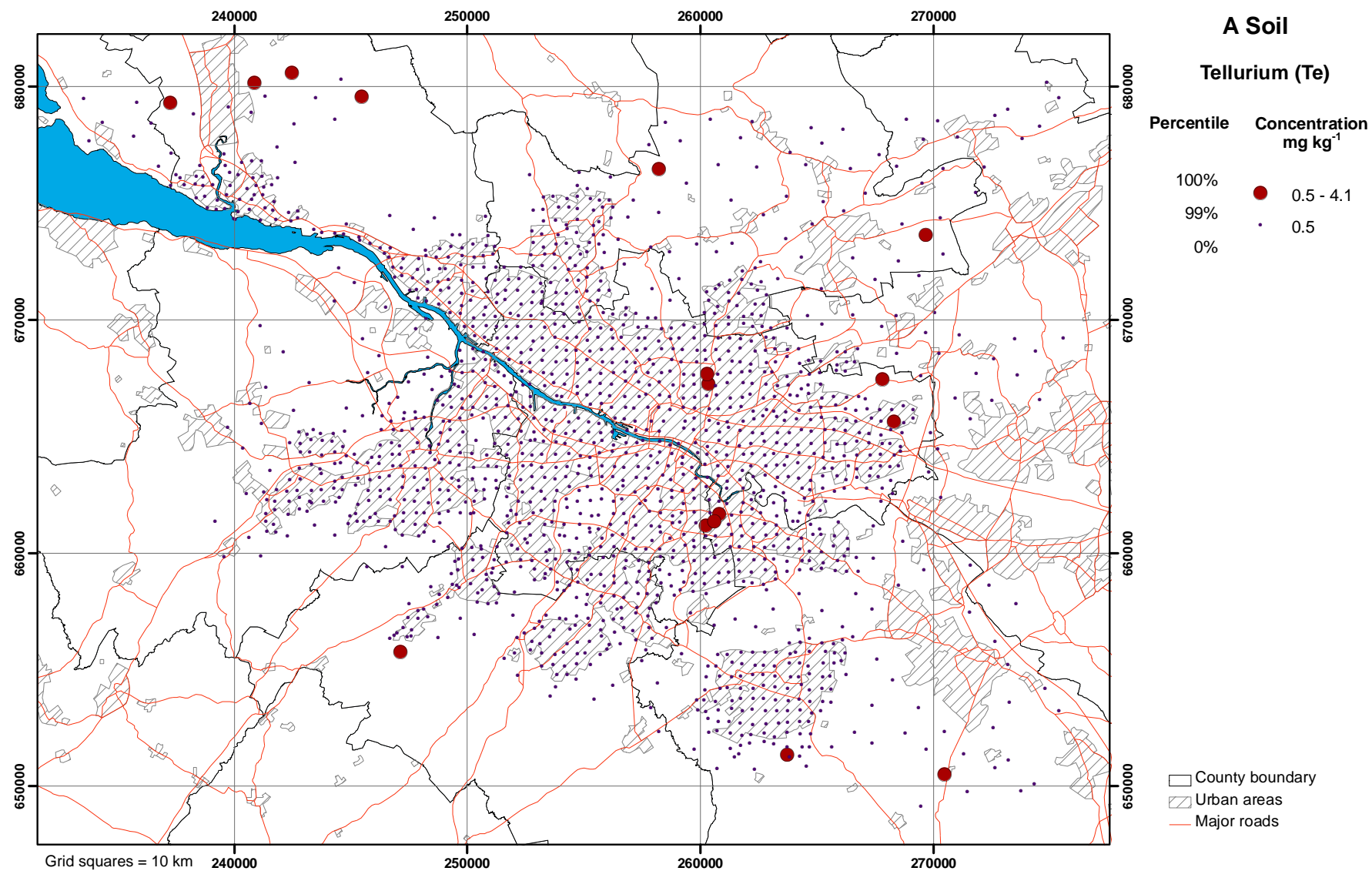


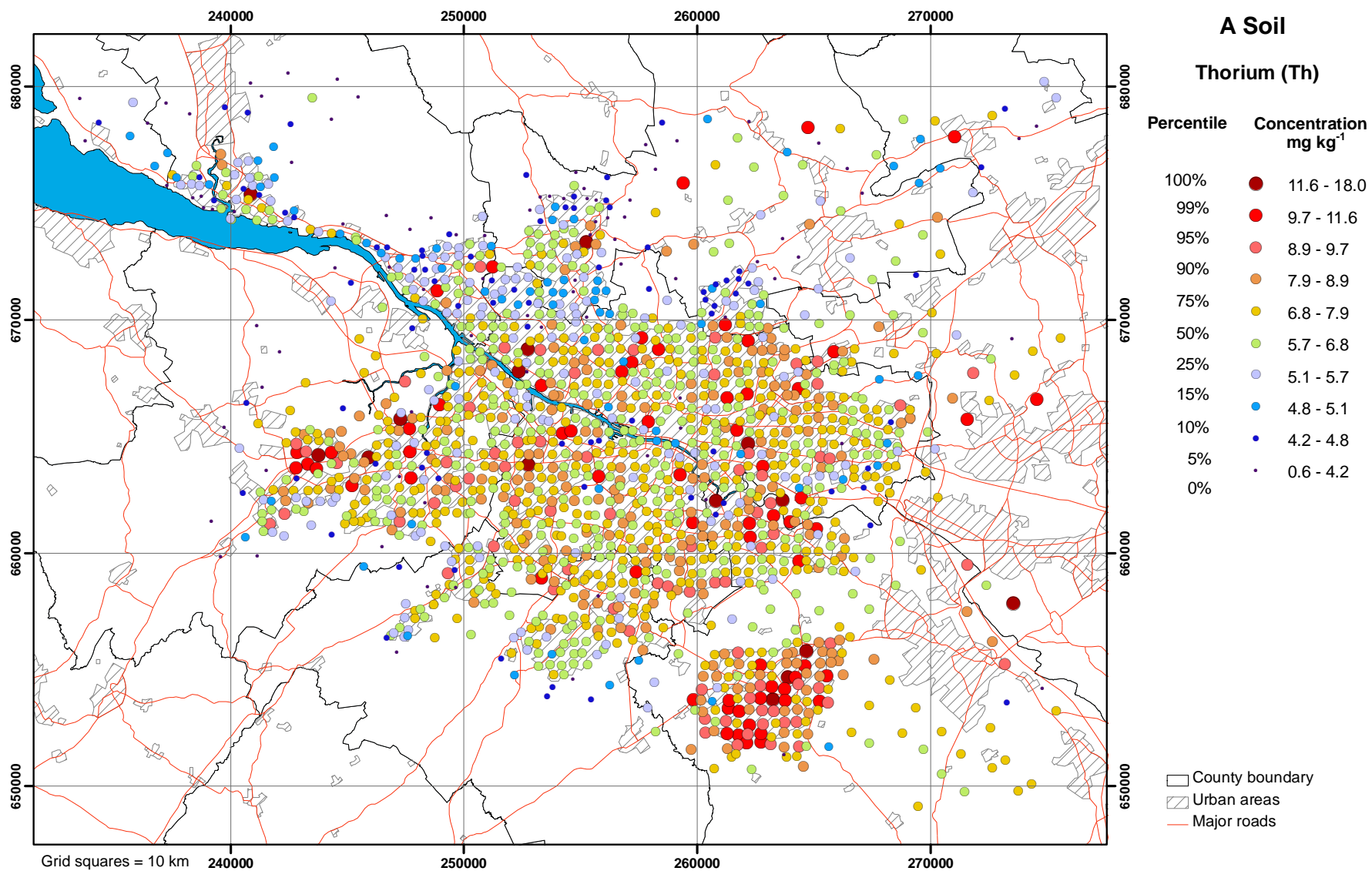


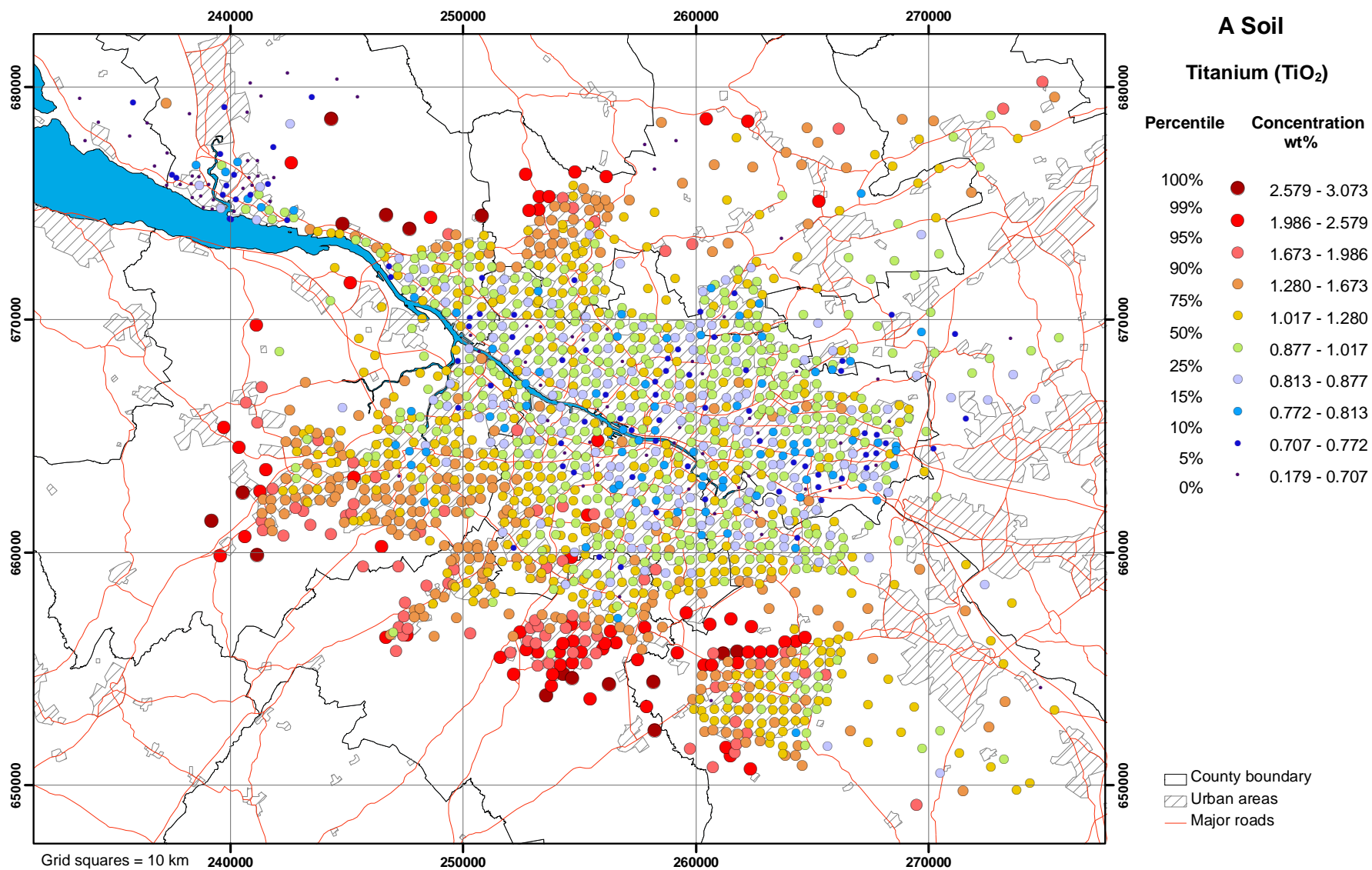


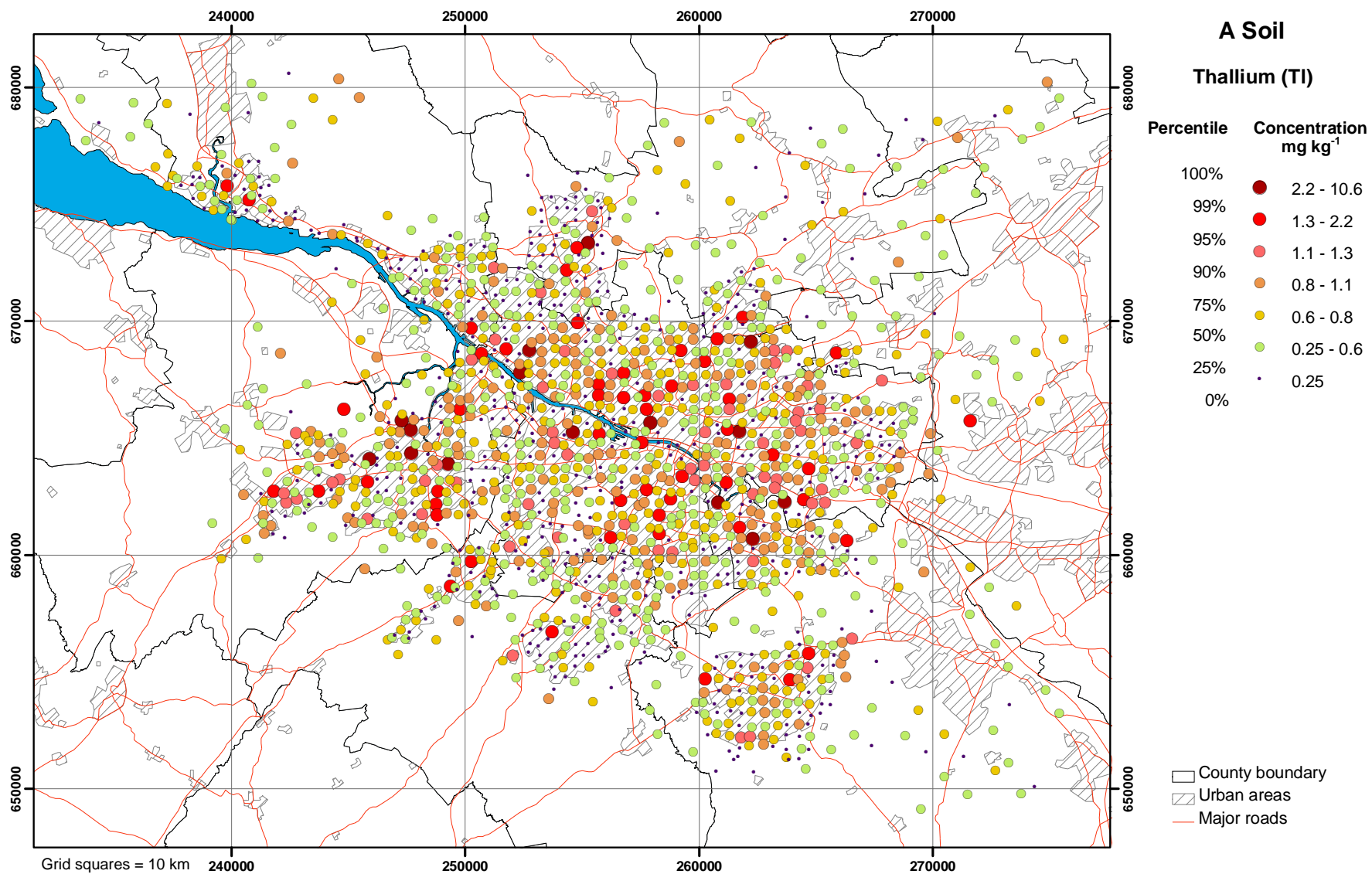




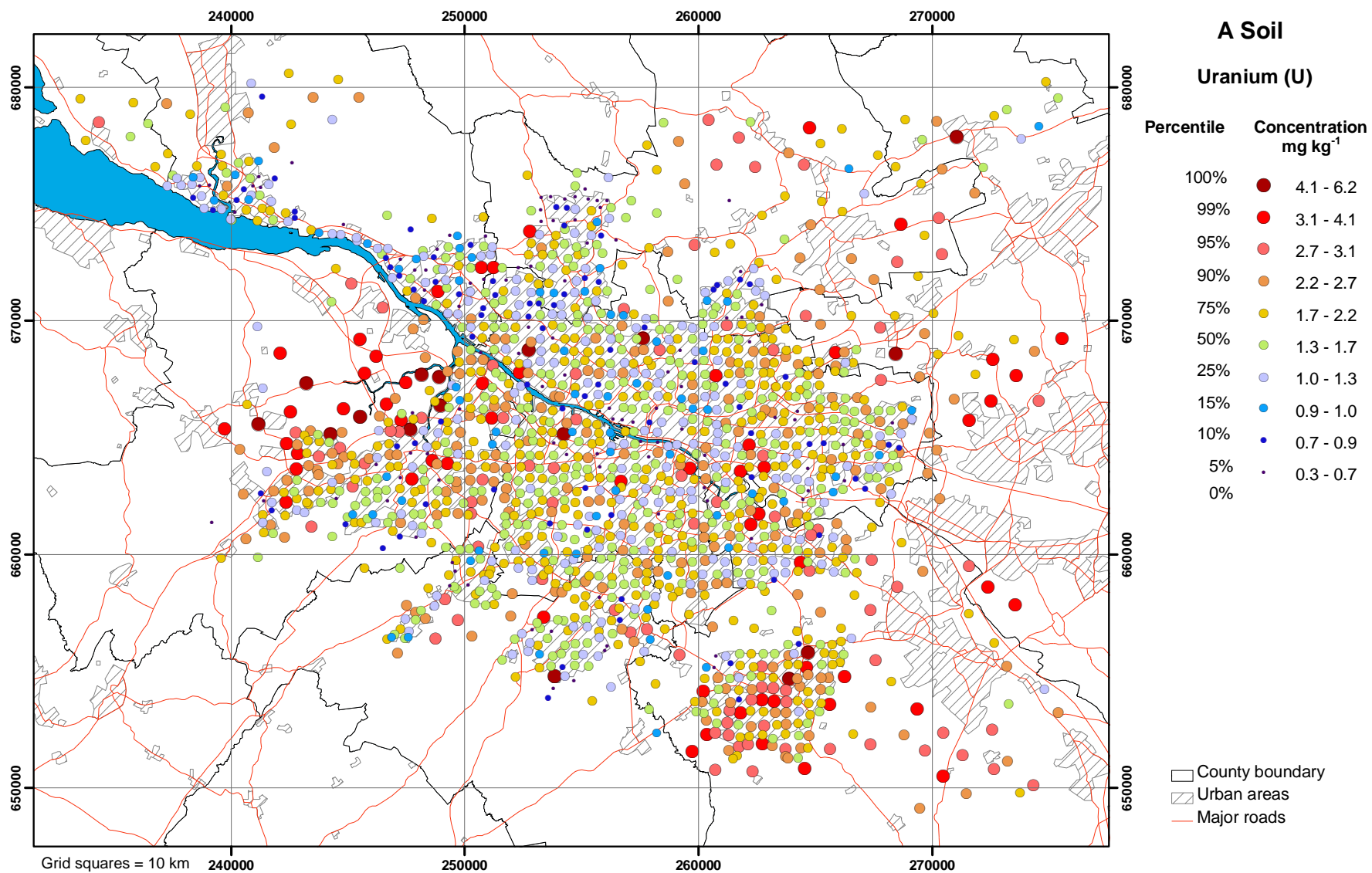


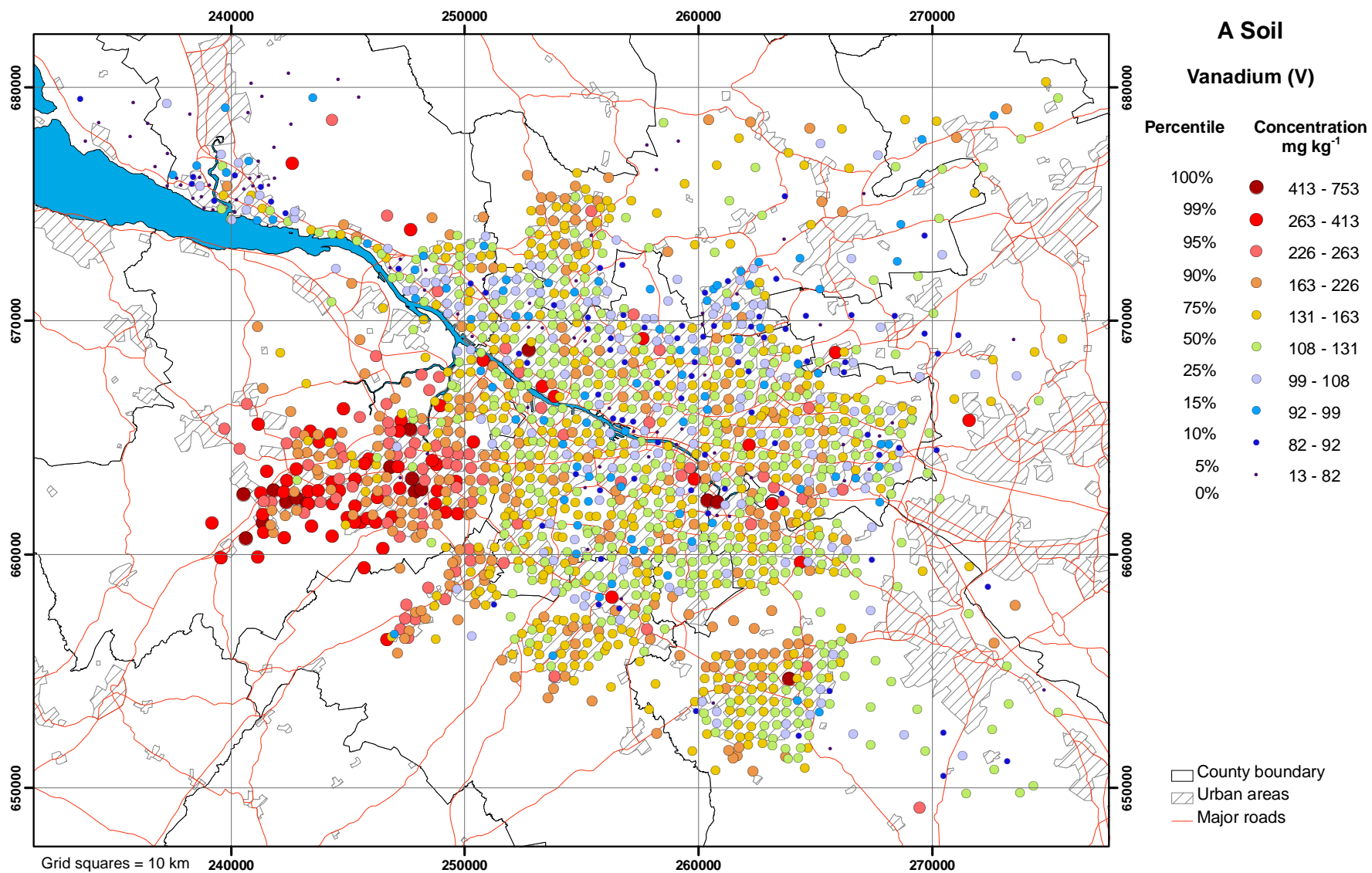


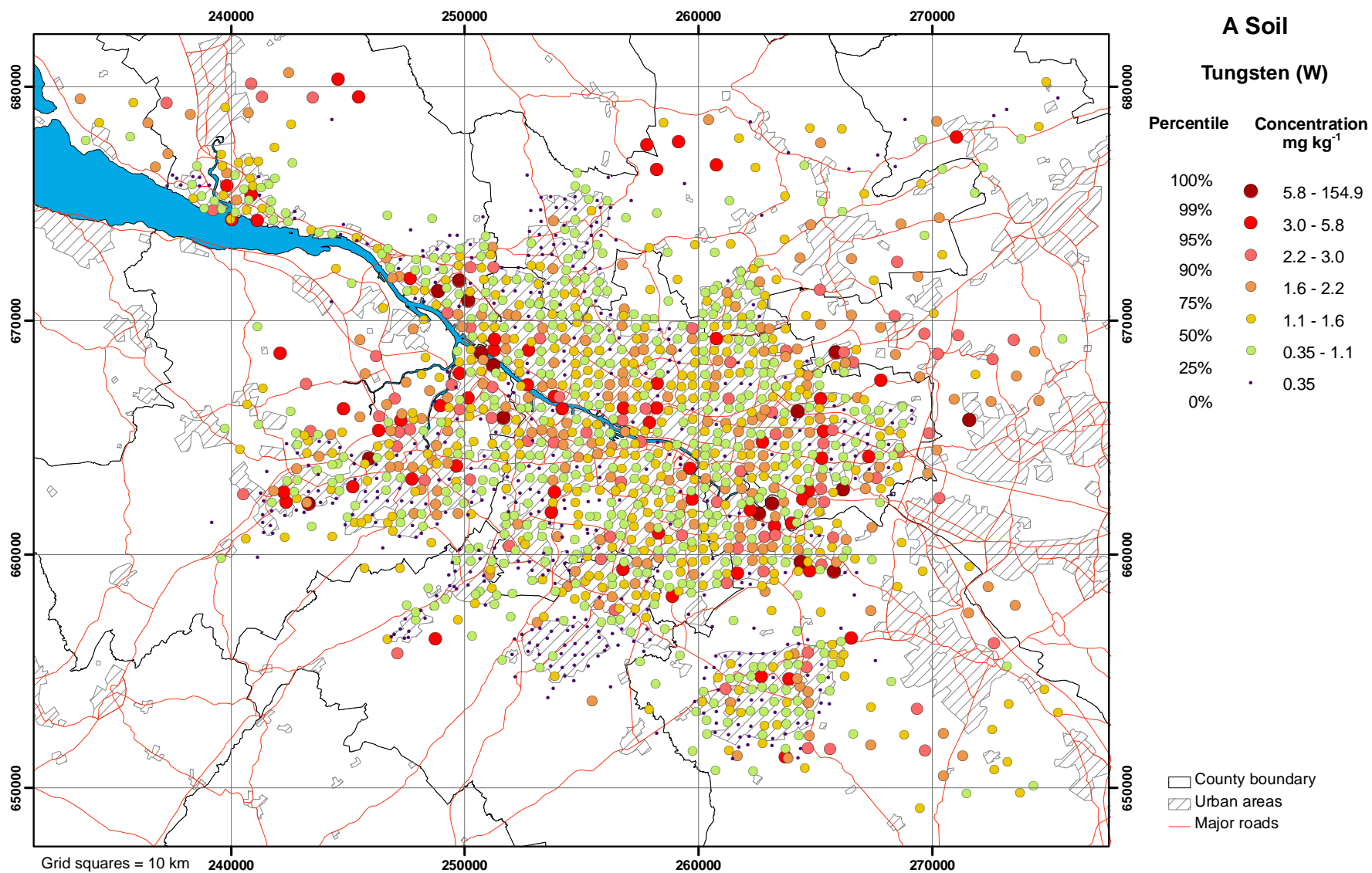


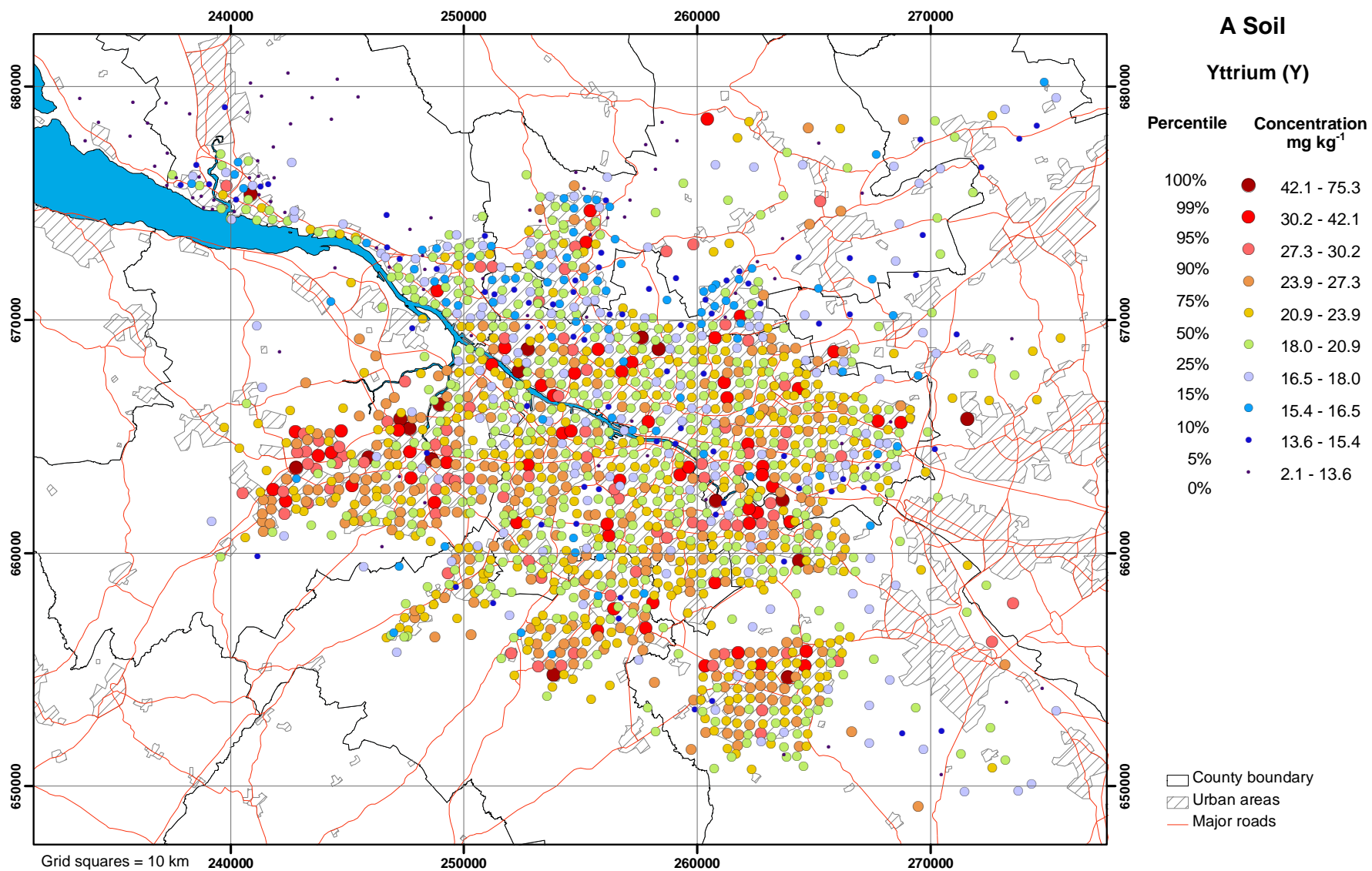




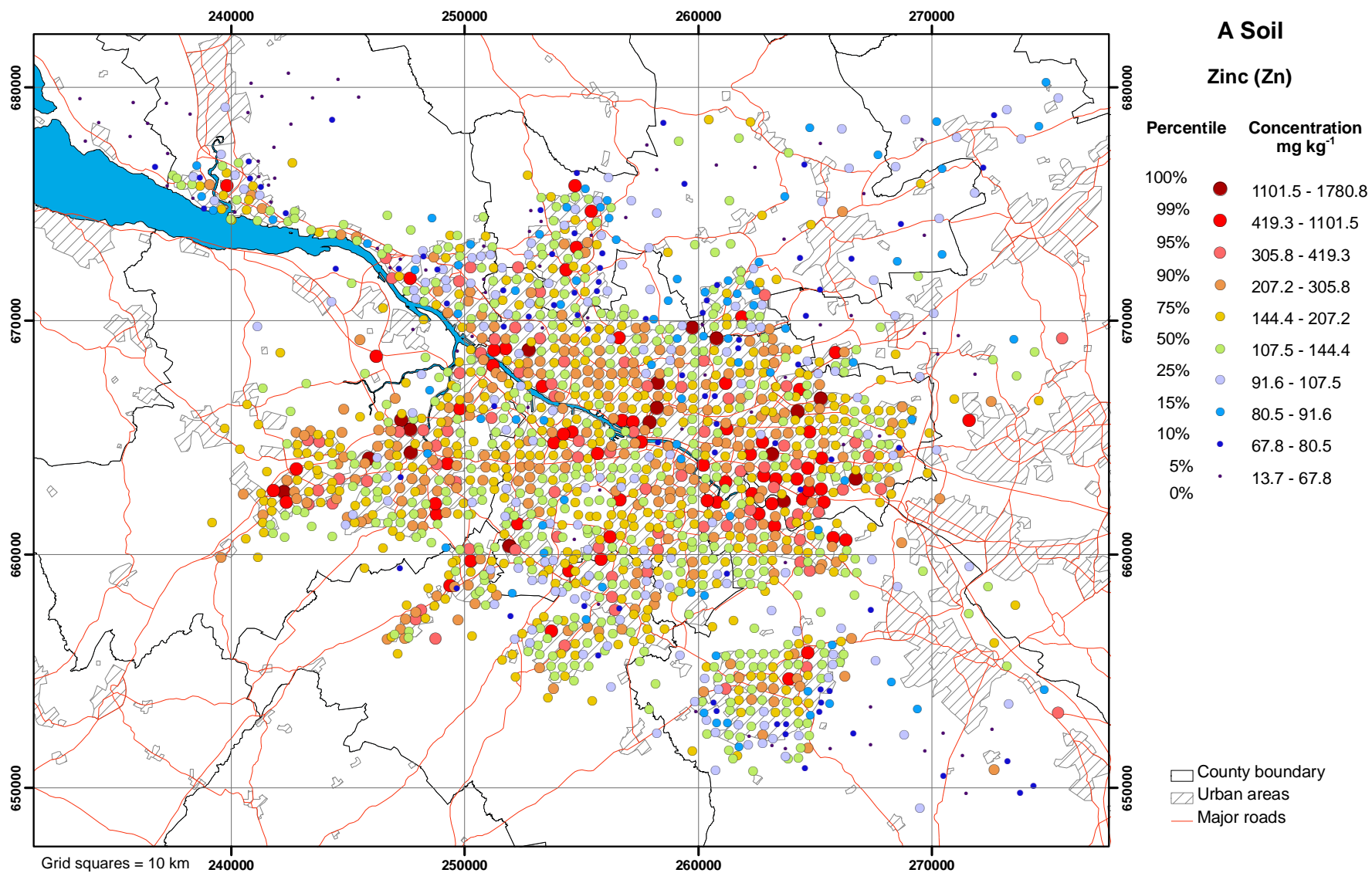


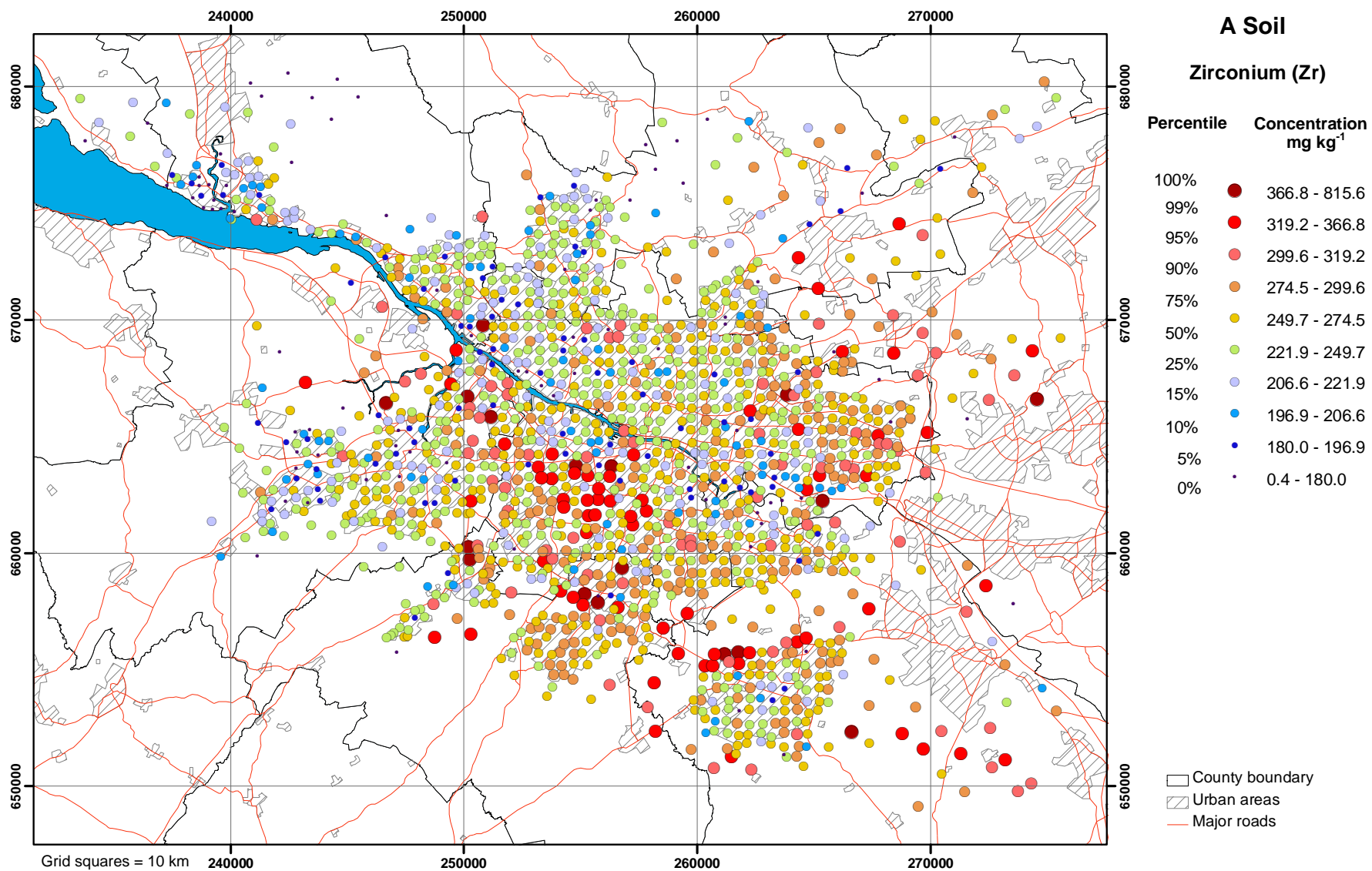


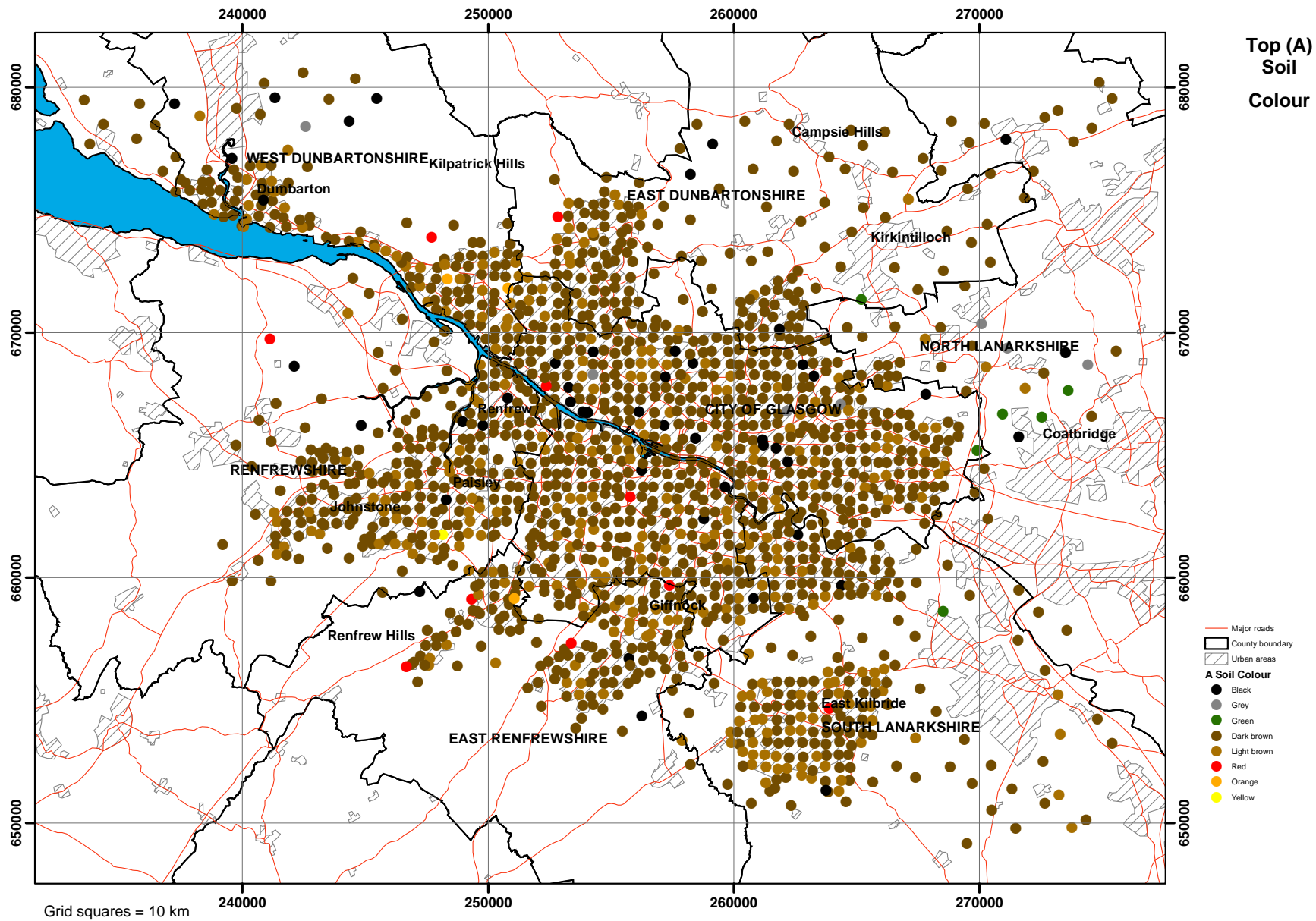


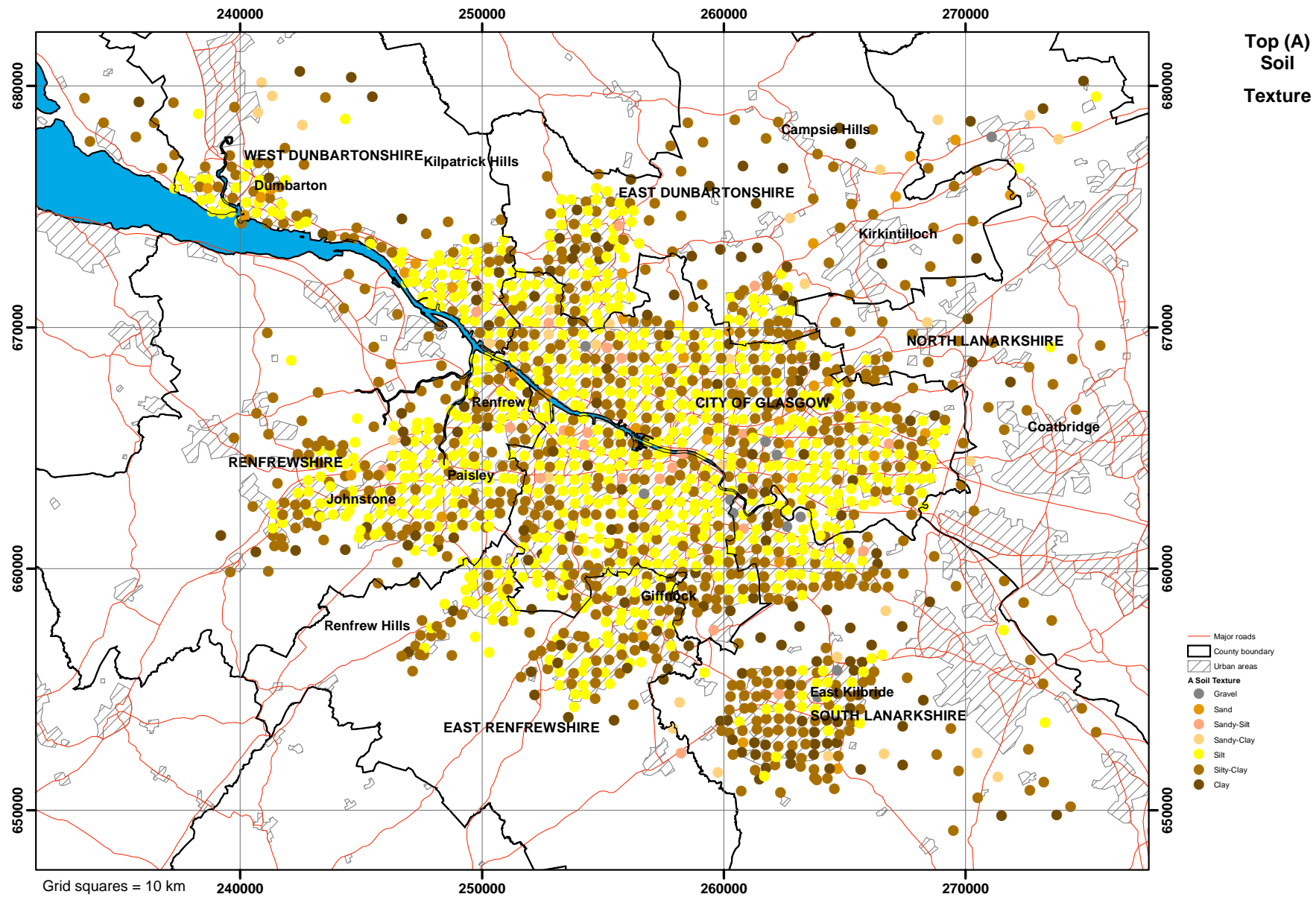








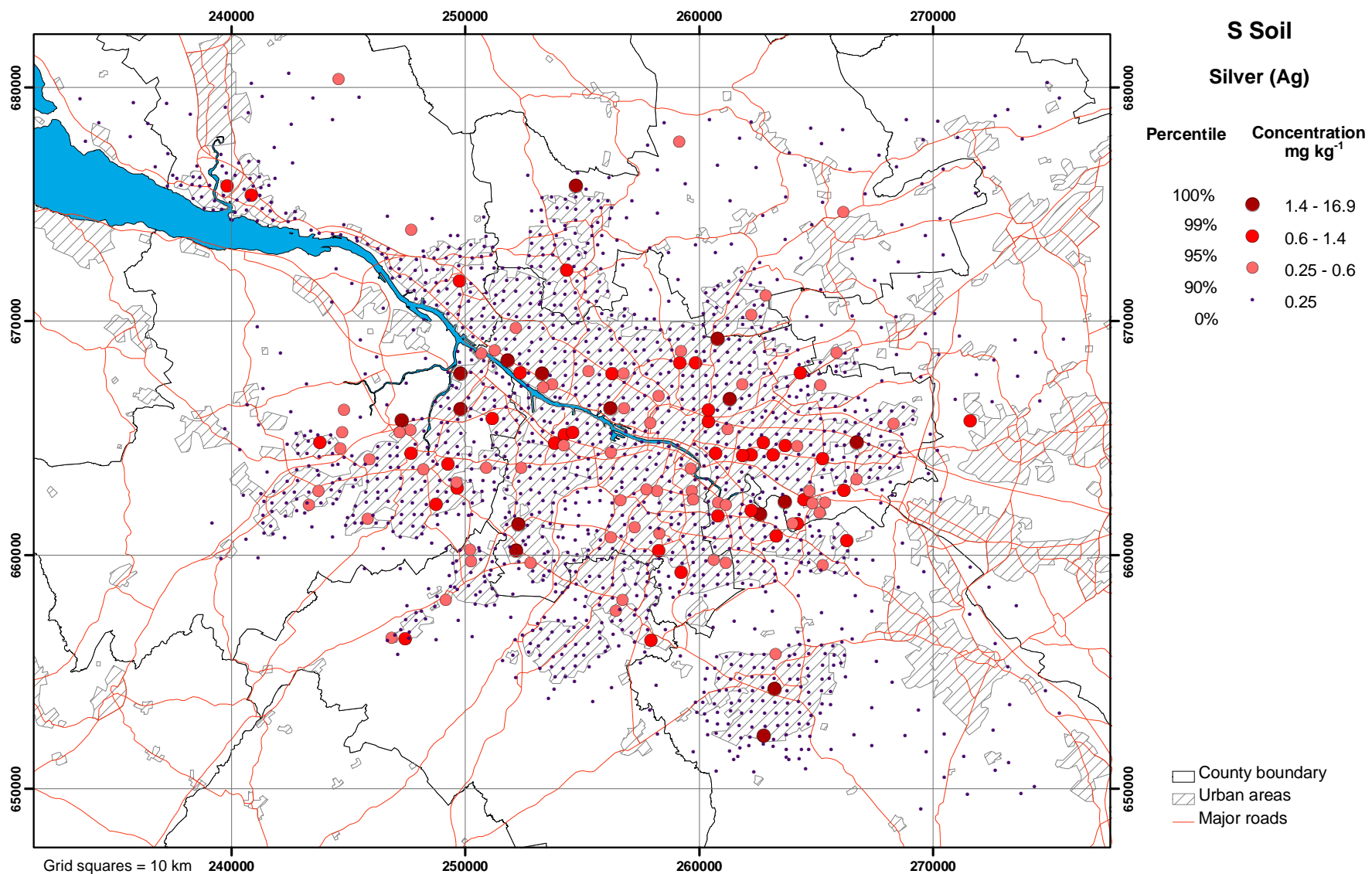


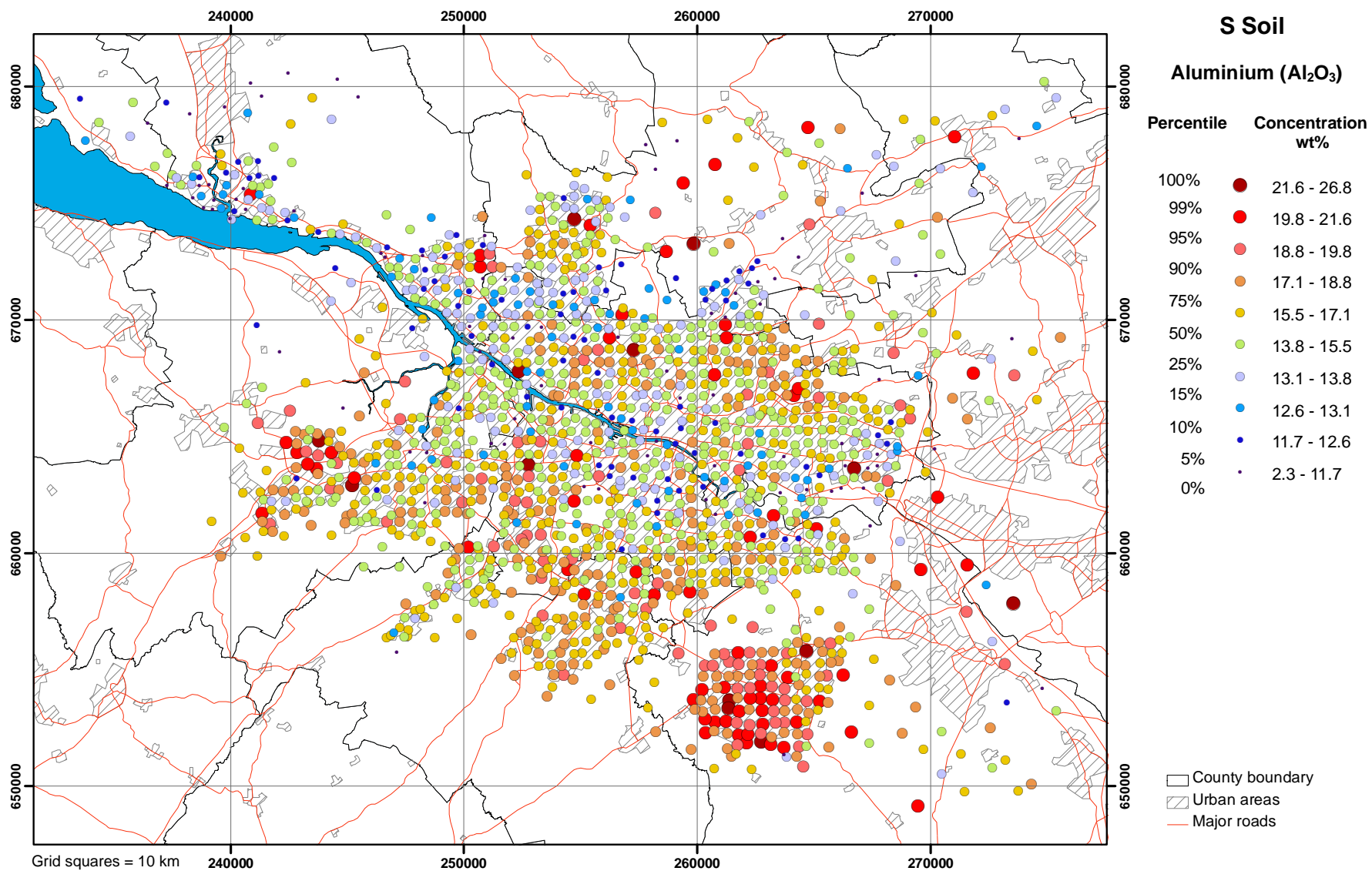


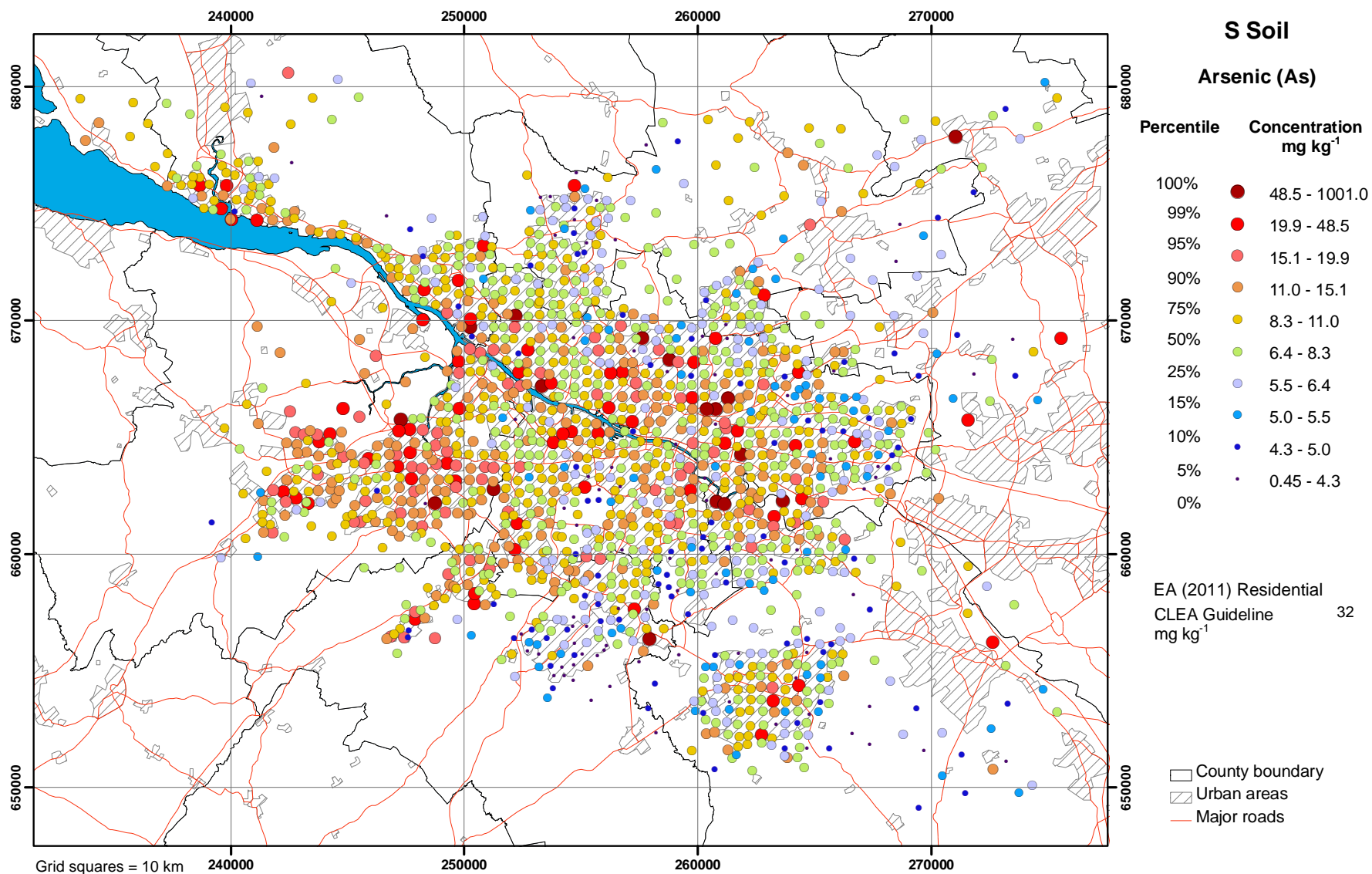


## Appendix 4 Graduated Symbol Maps of Parameter Concentrations in <2 mm Glasgow Deeper (S) Soils

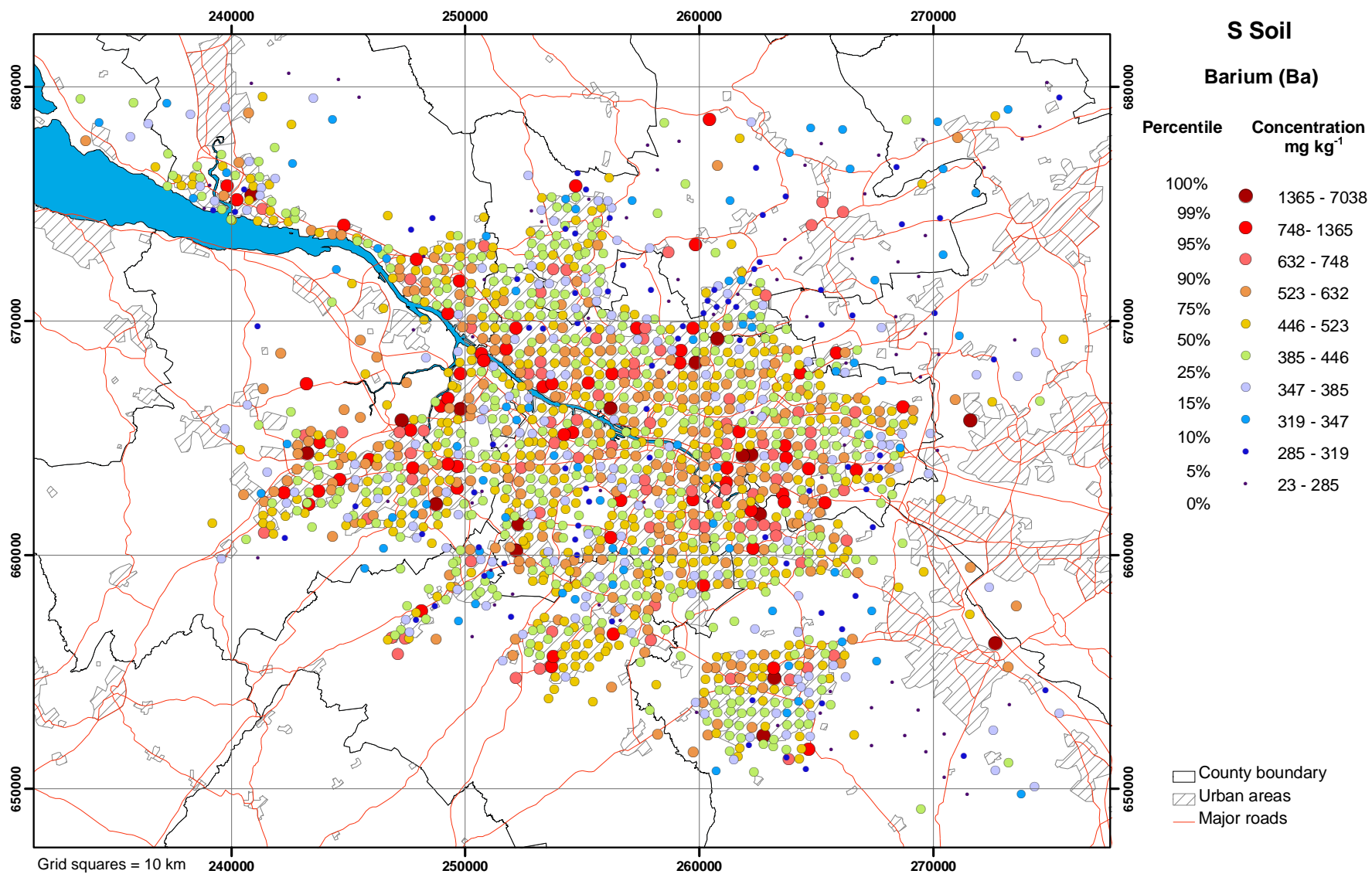
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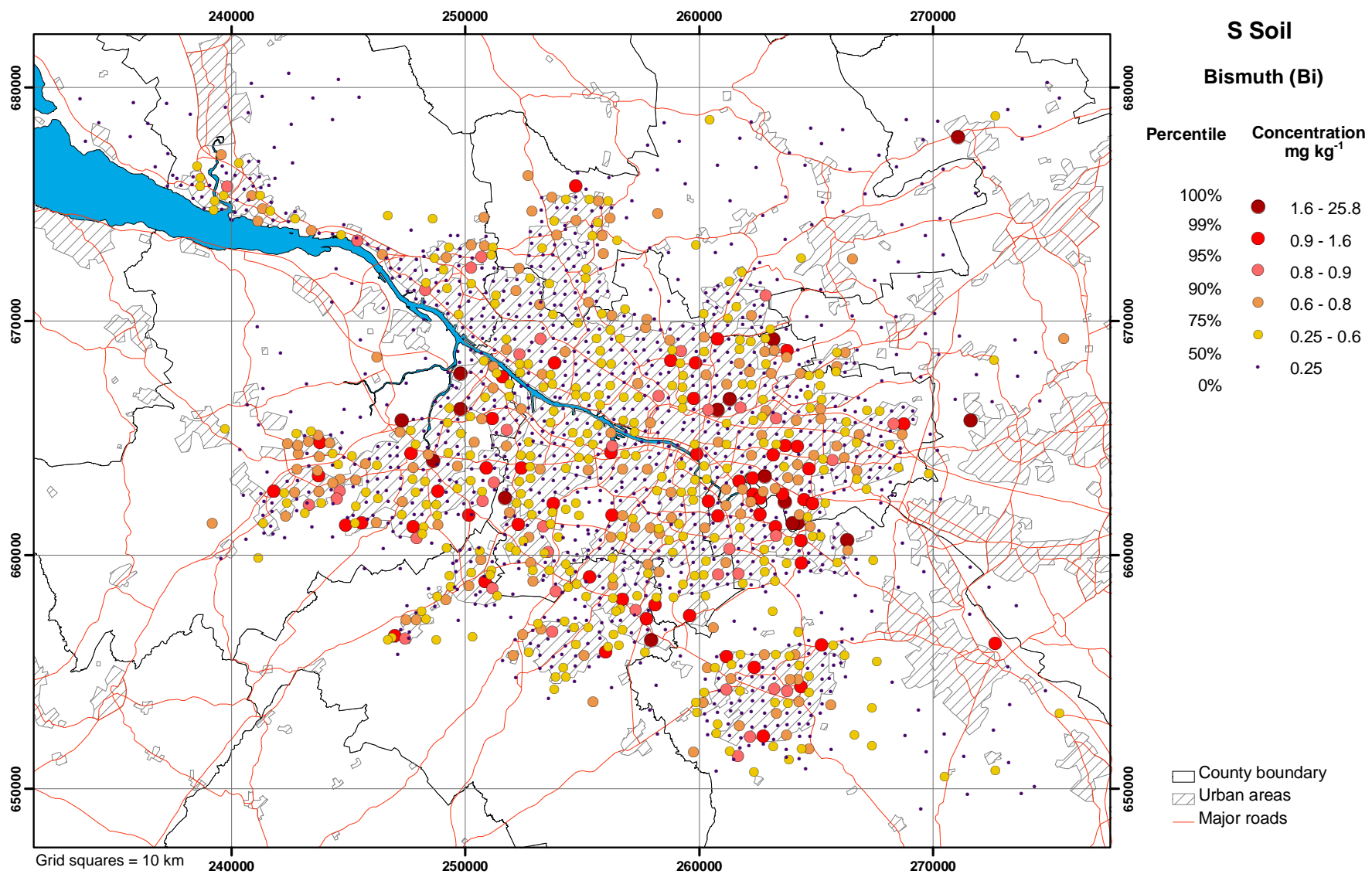


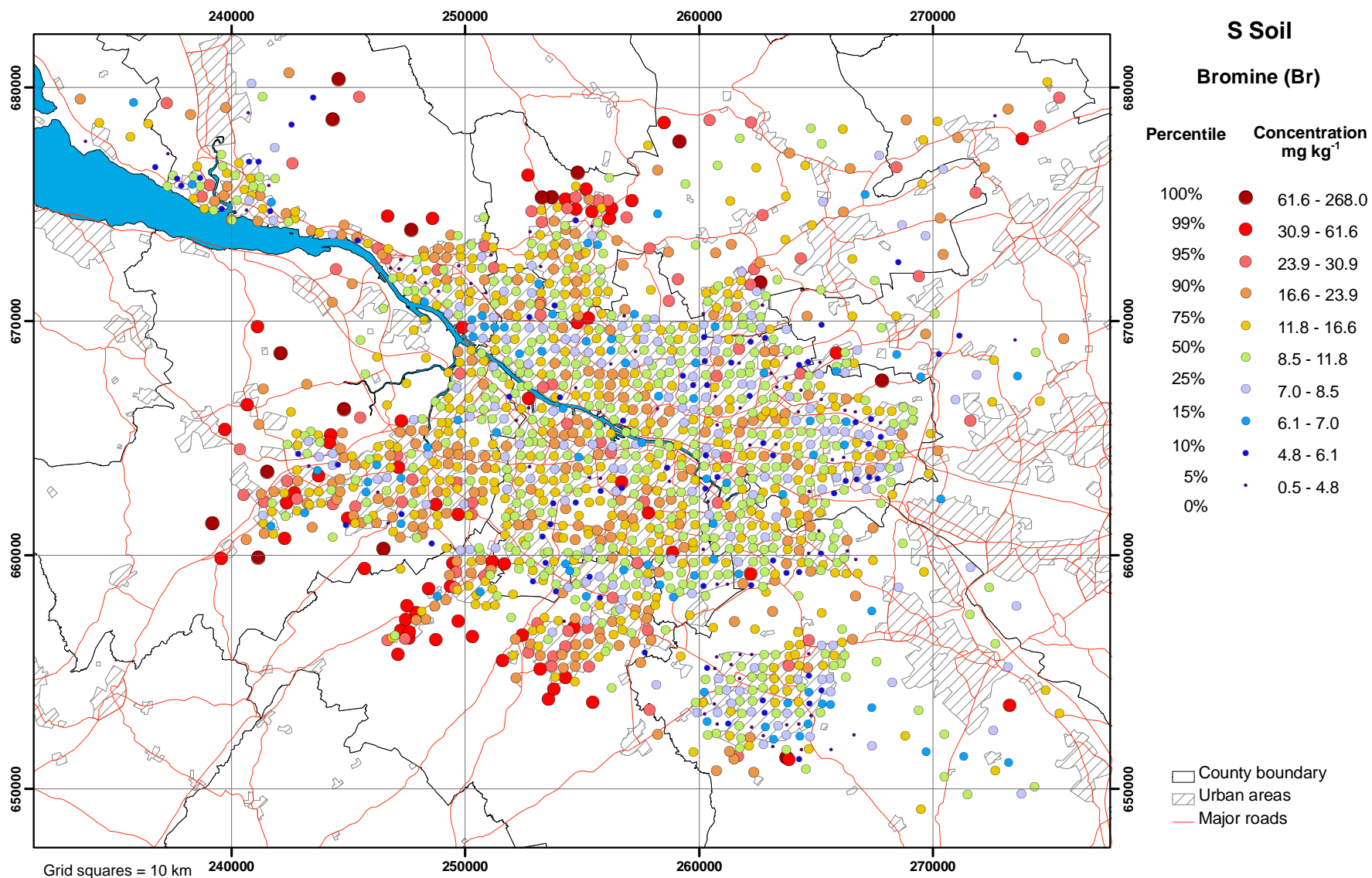


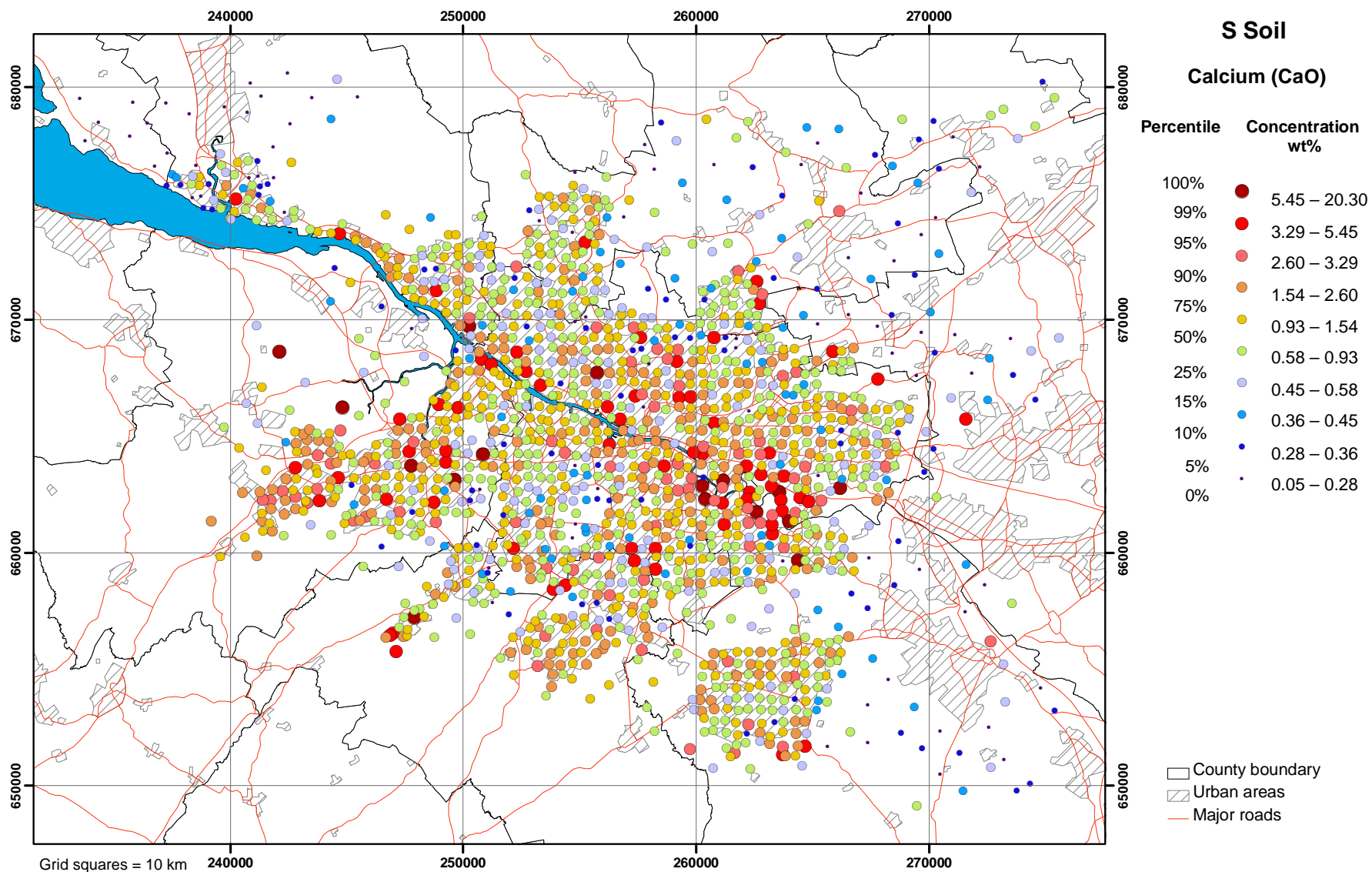




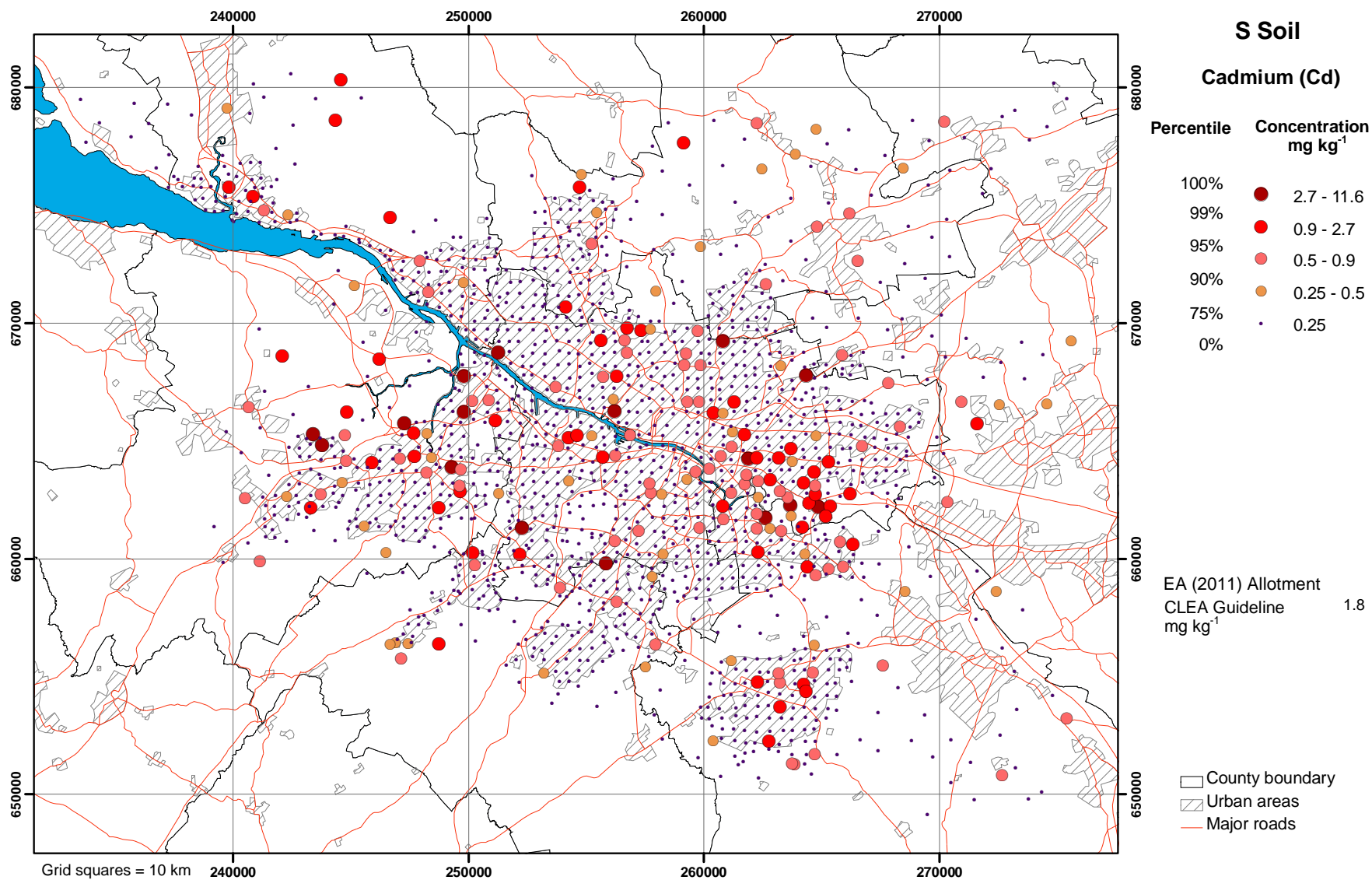


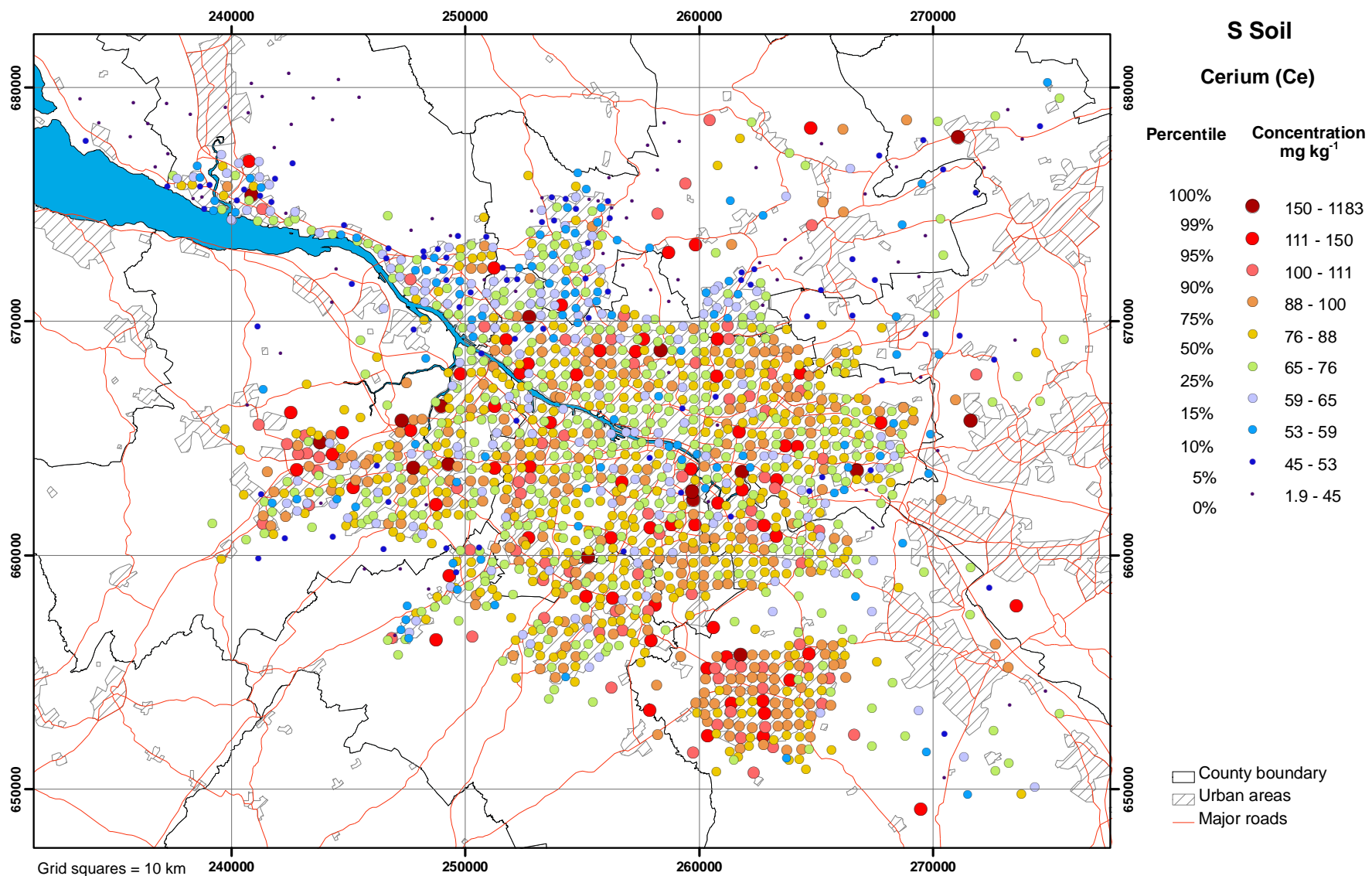


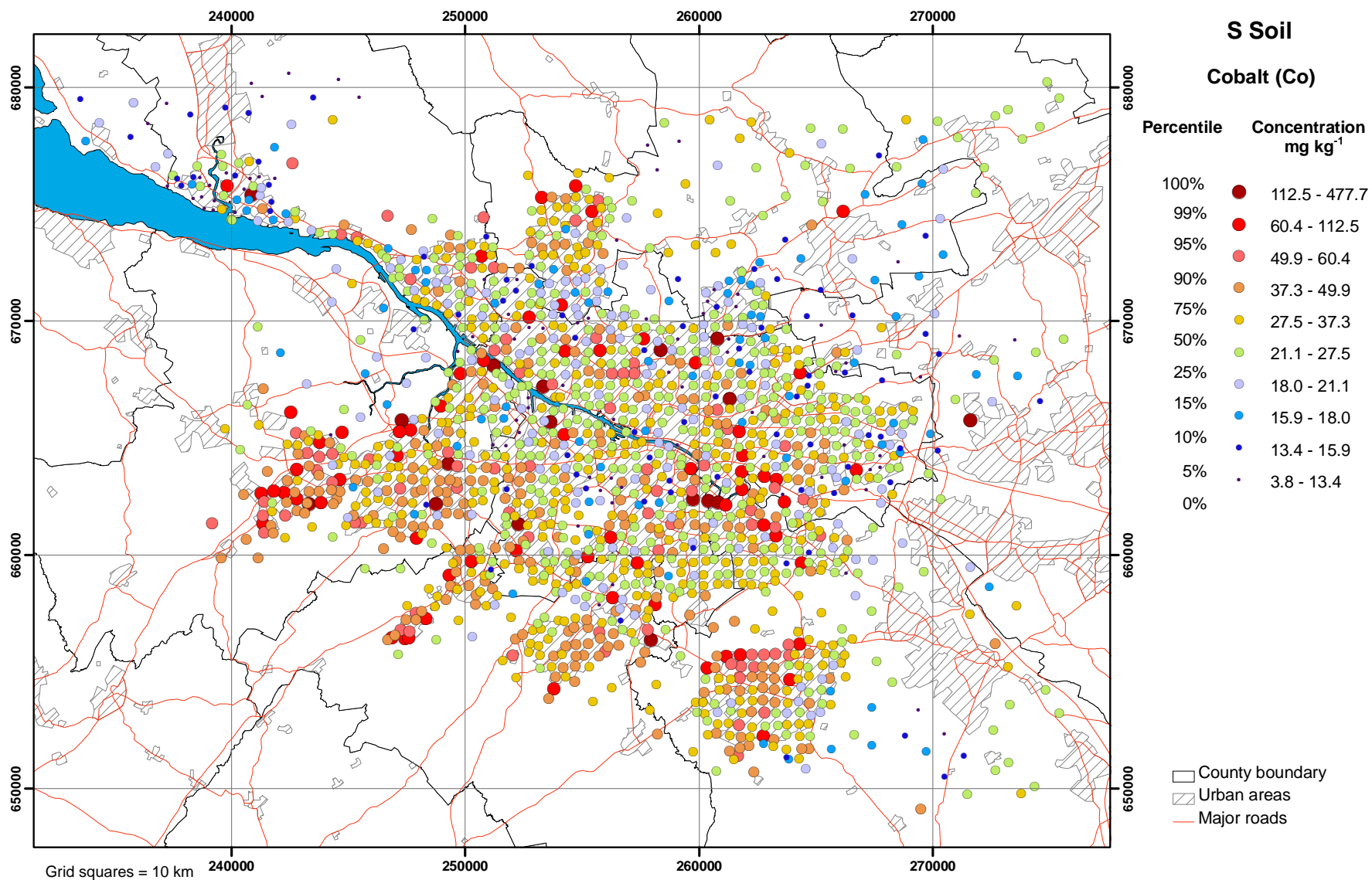


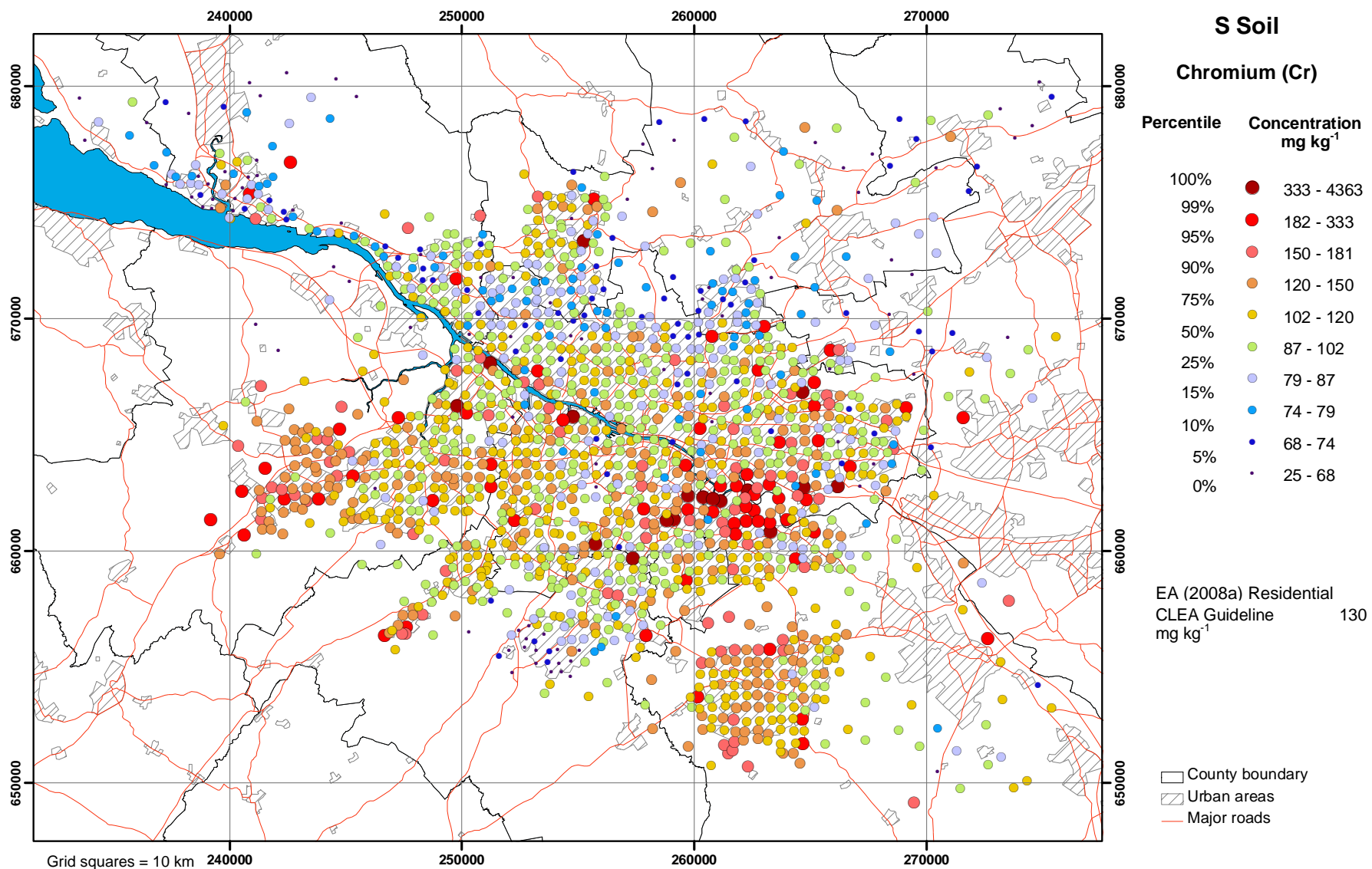




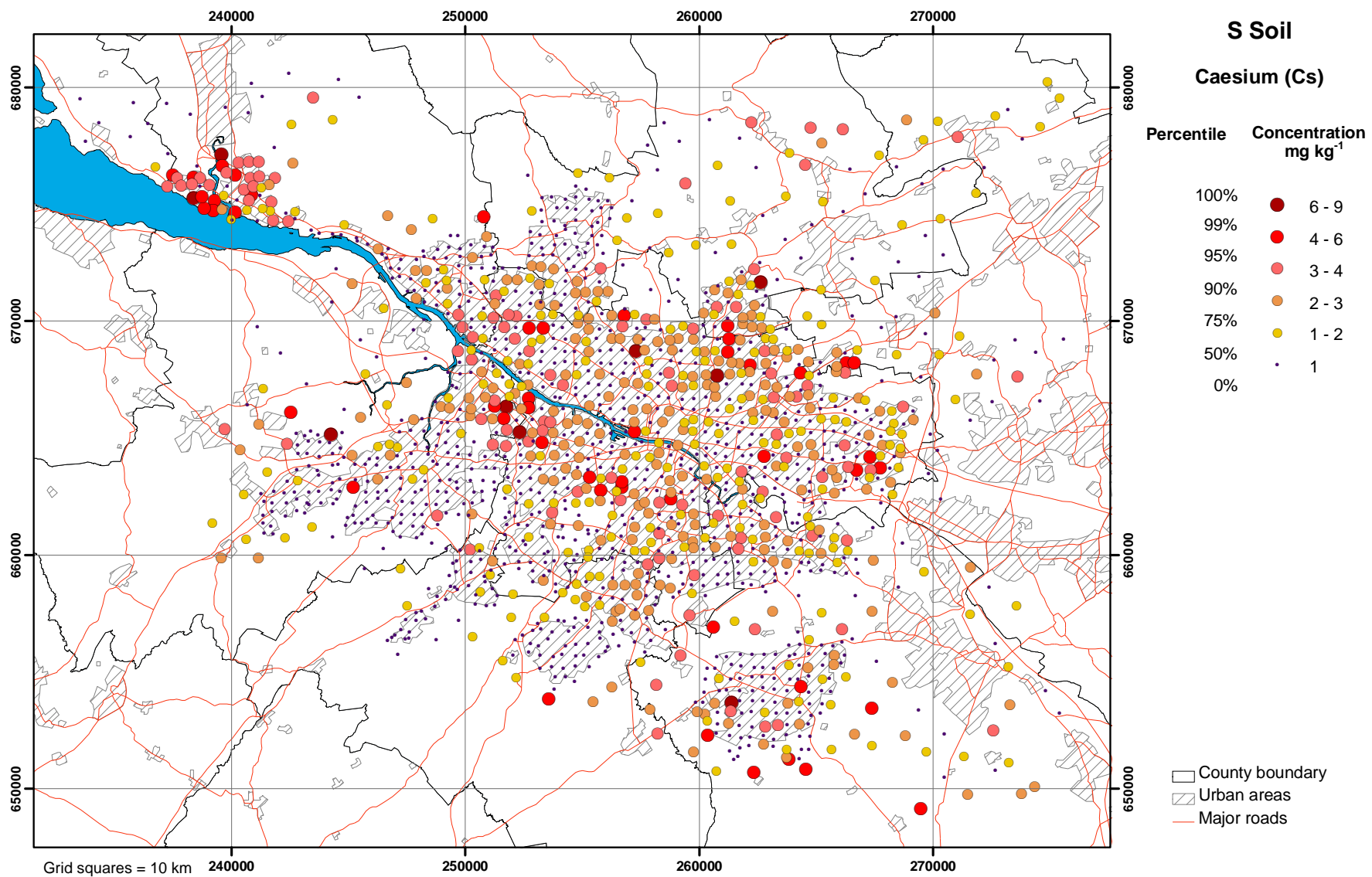


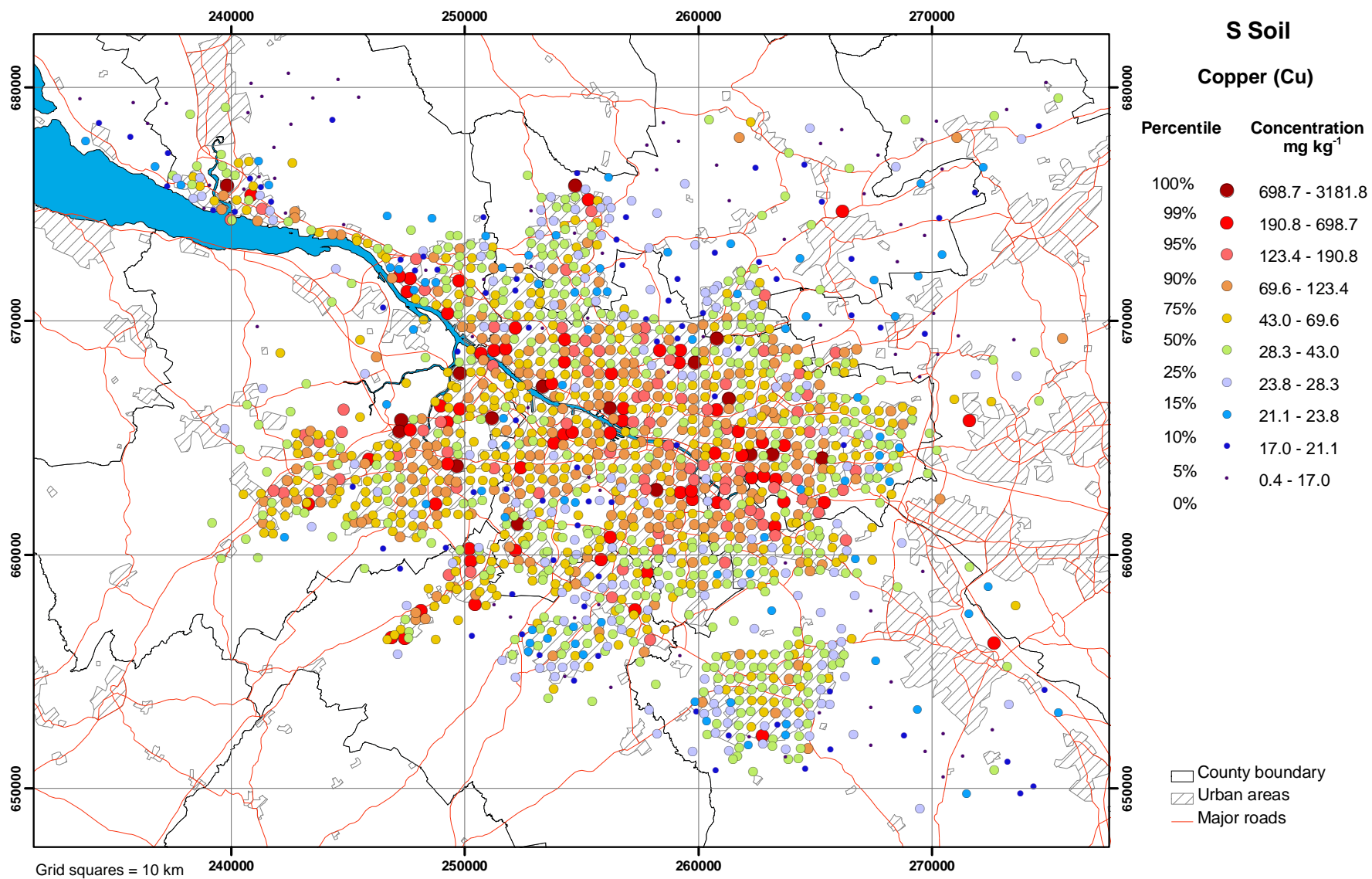


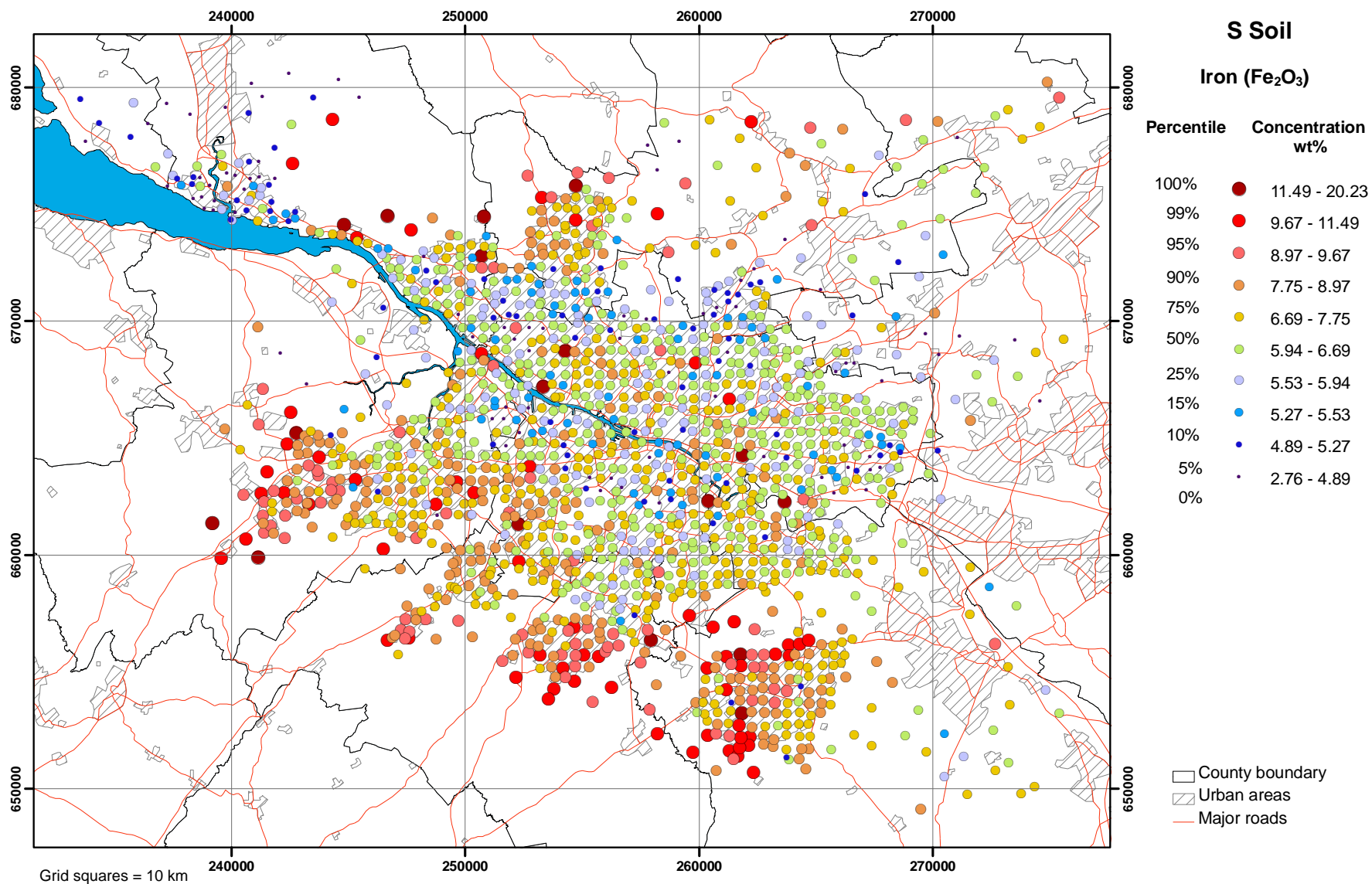


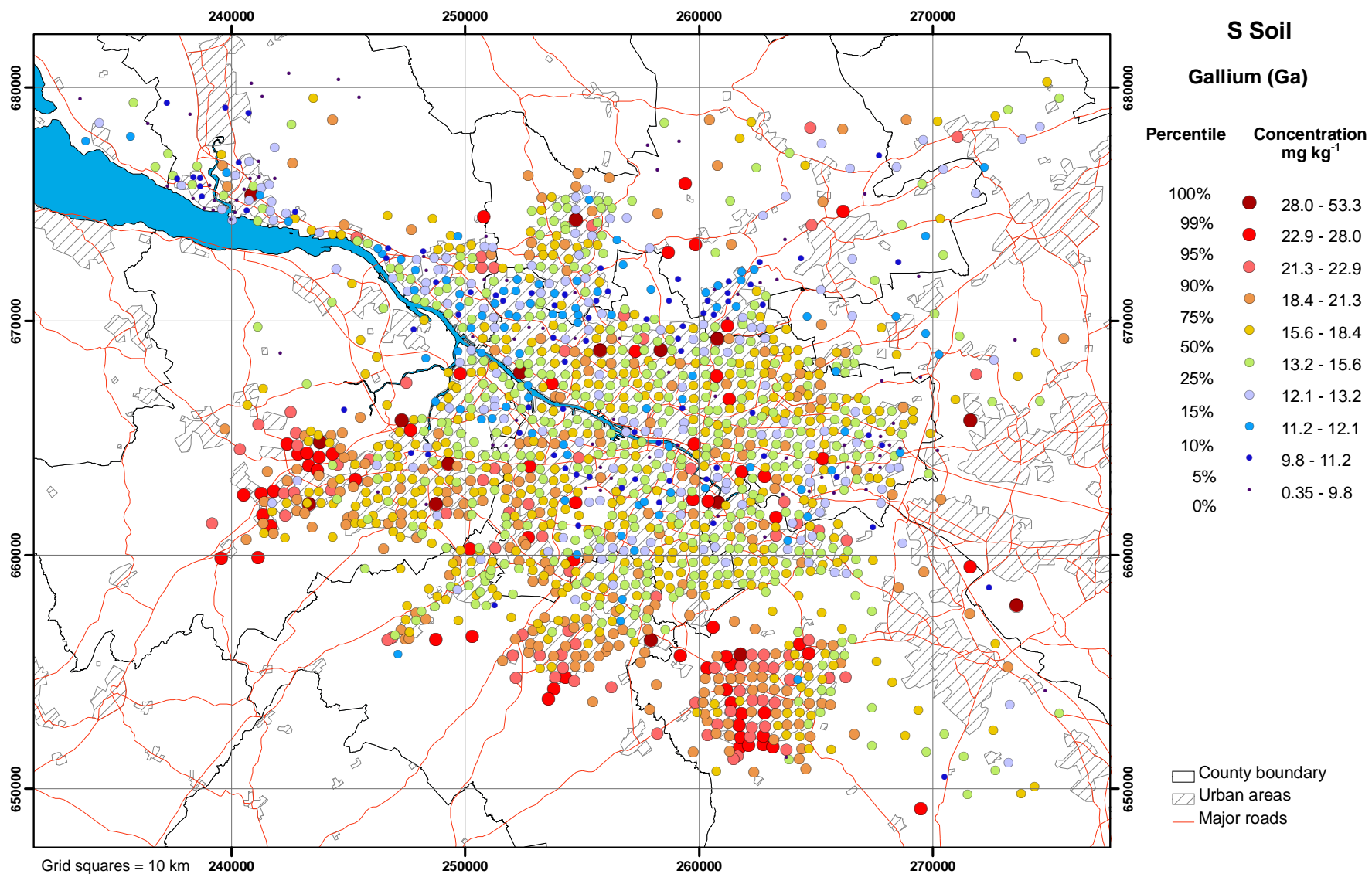




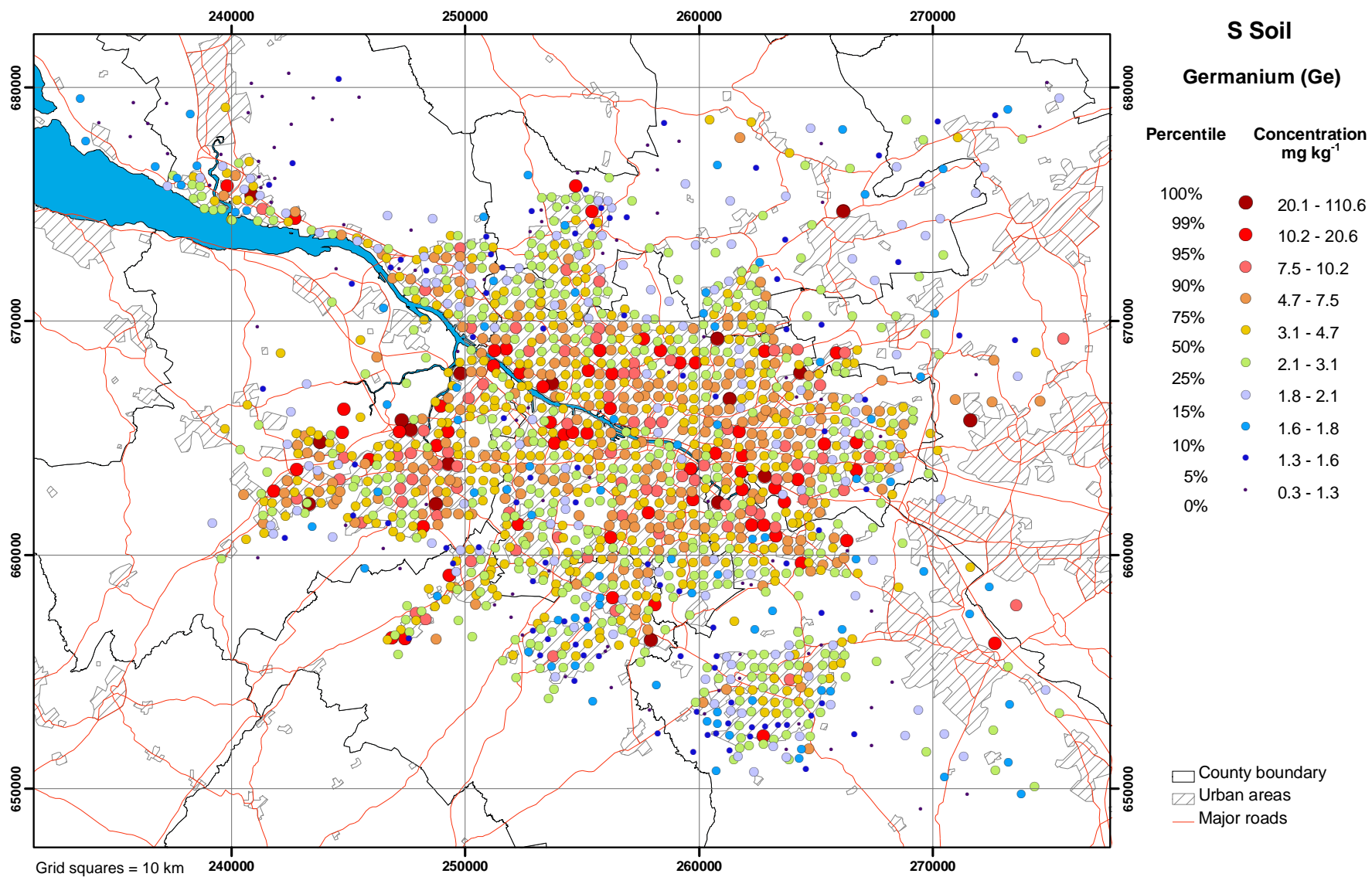


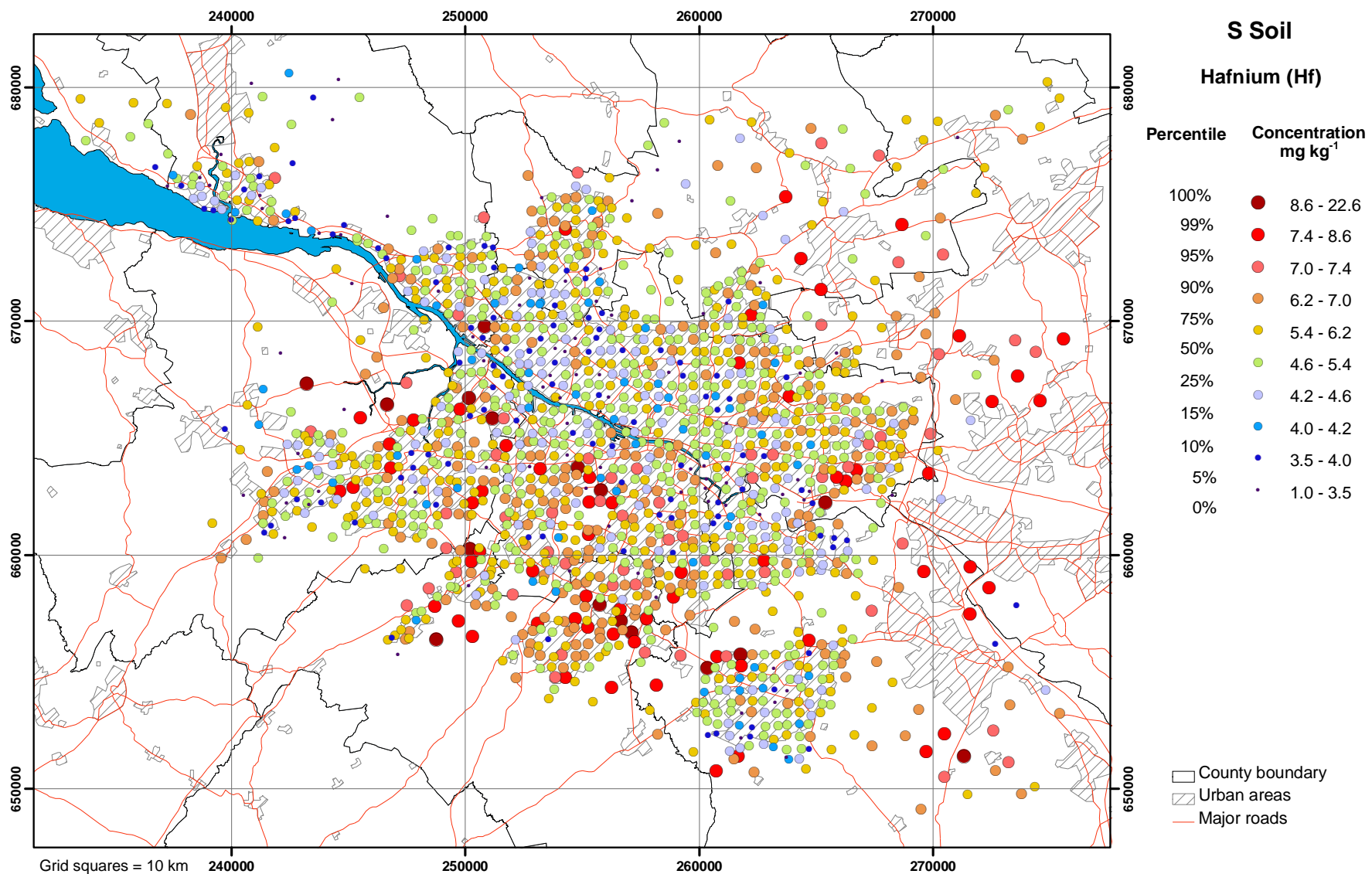


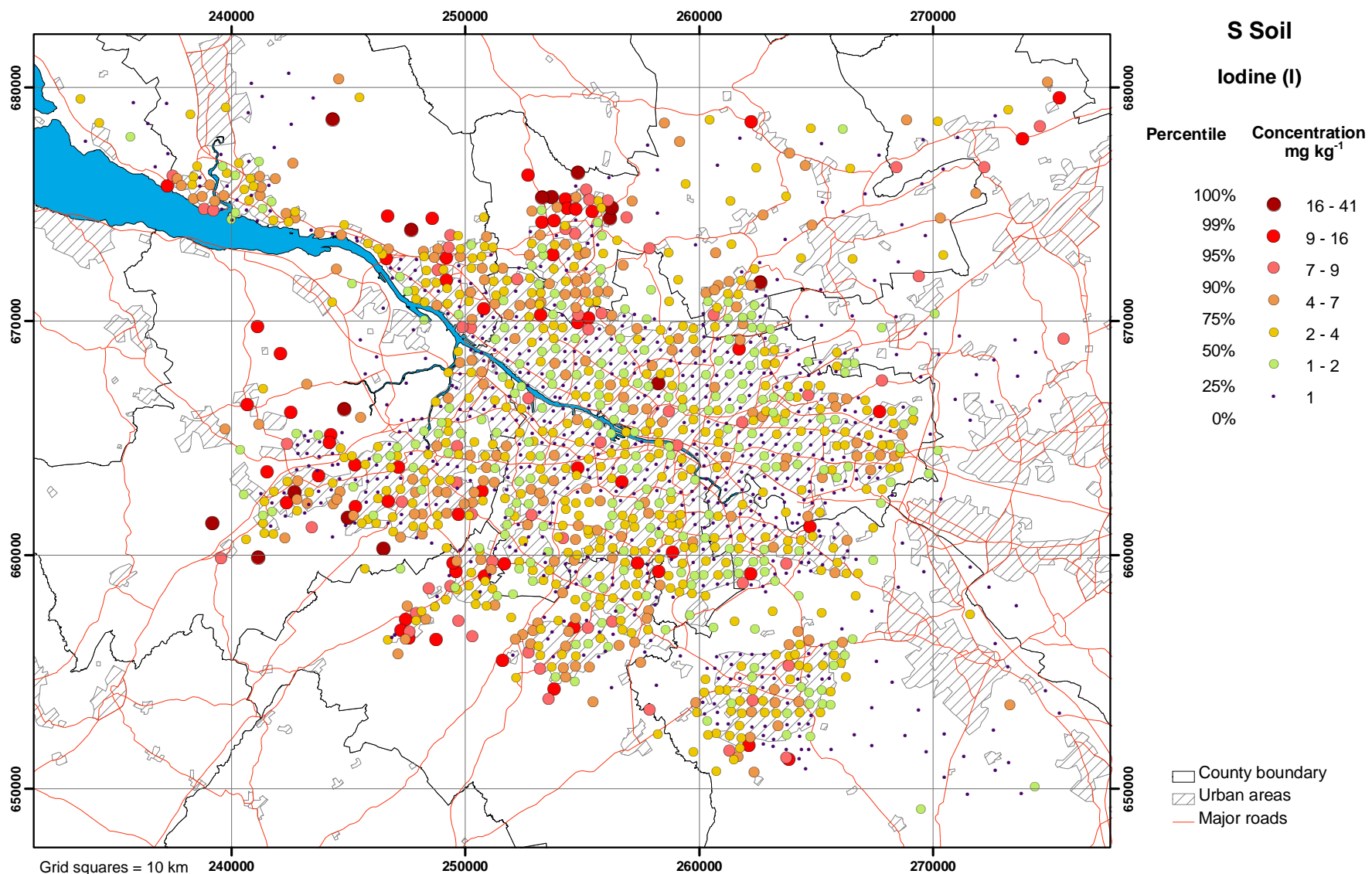


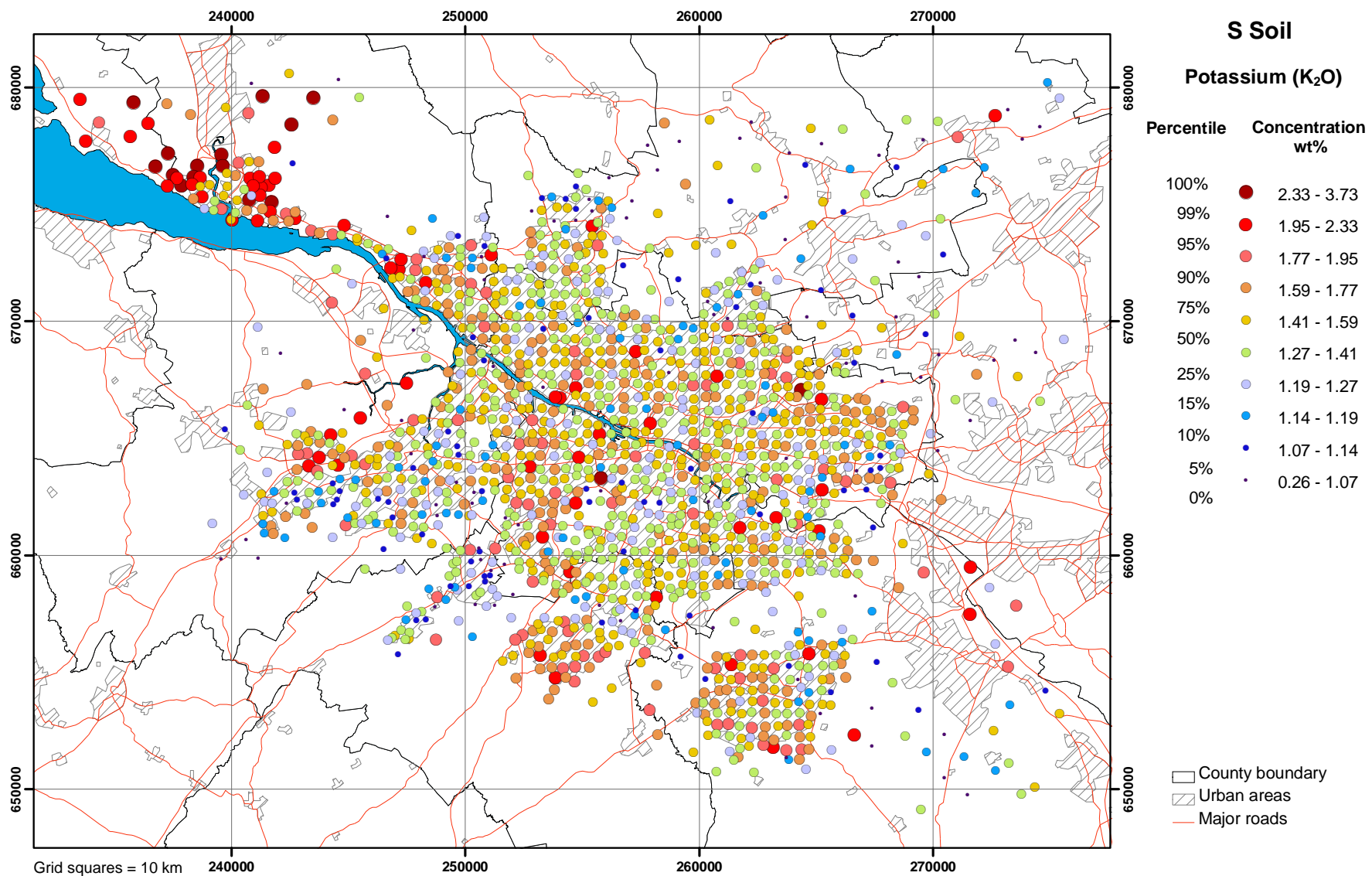




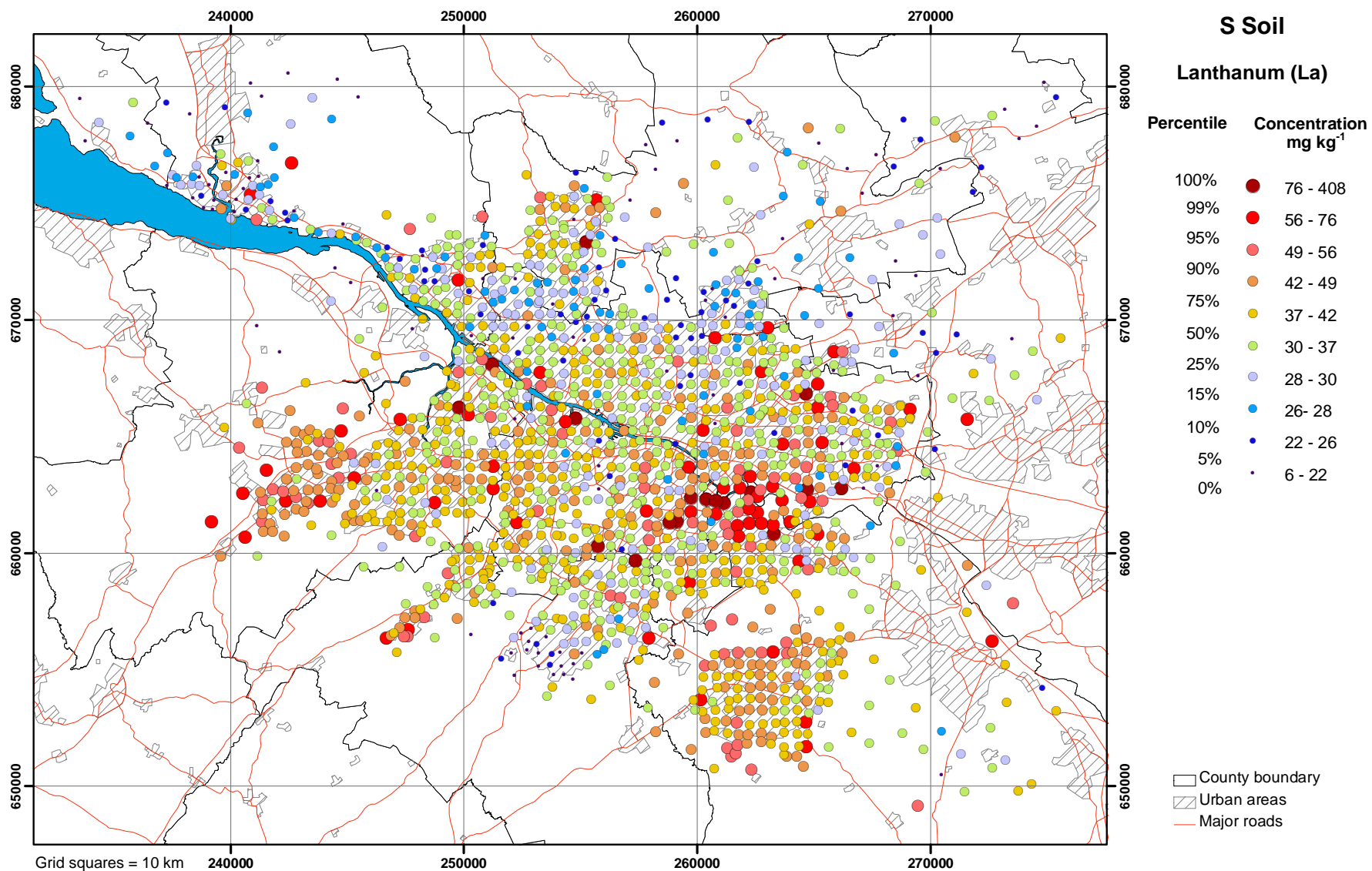


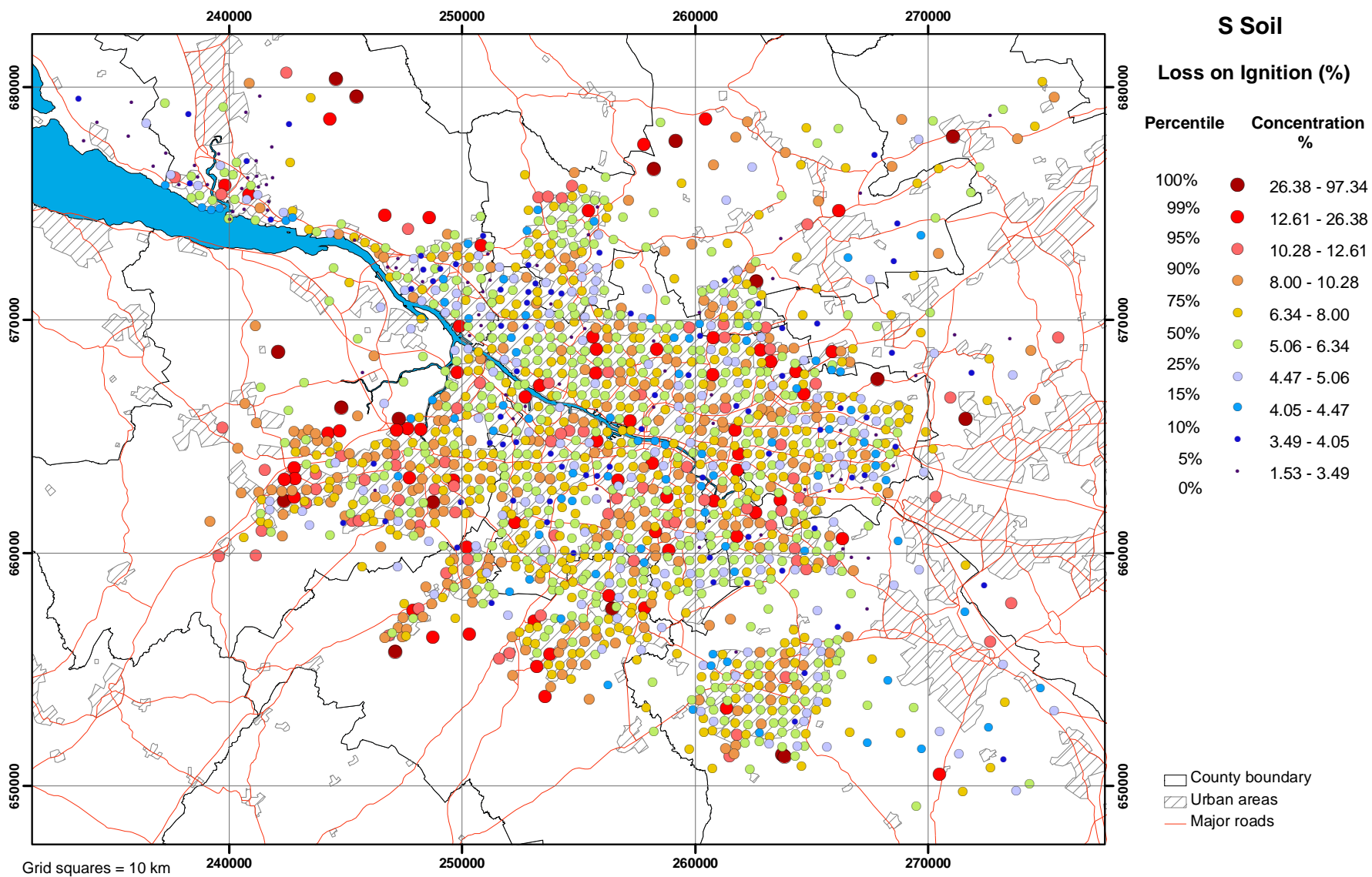


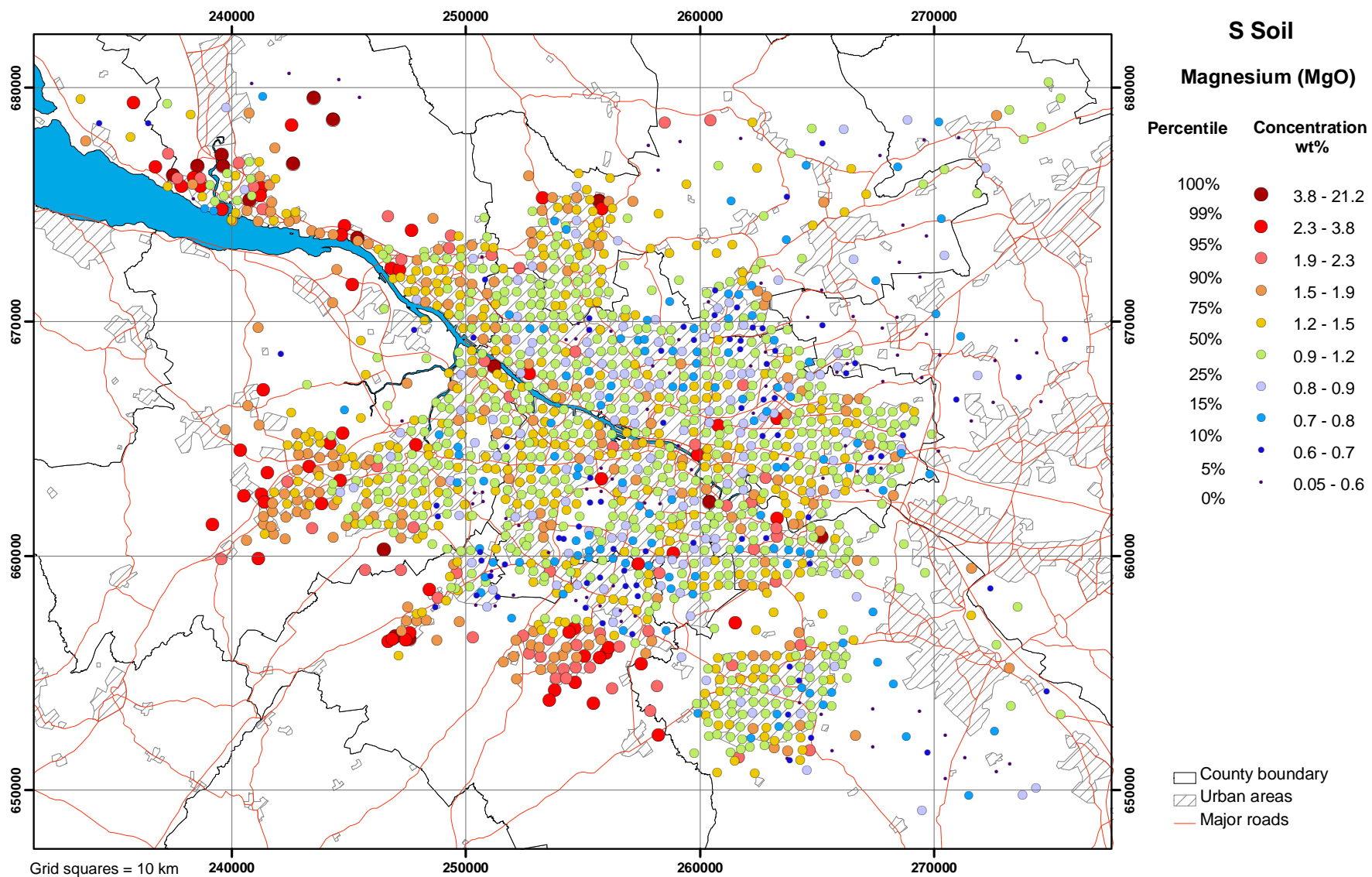


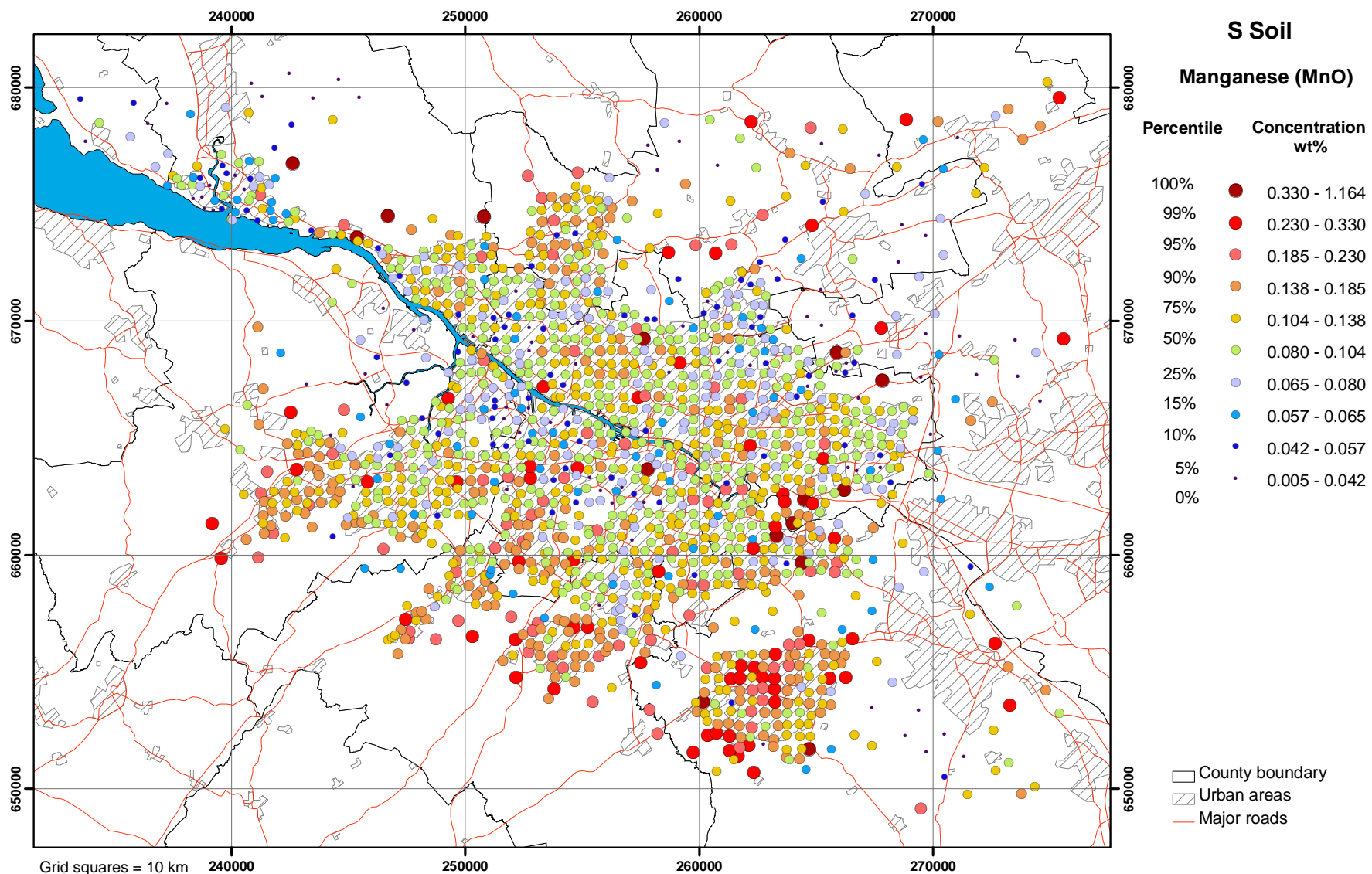




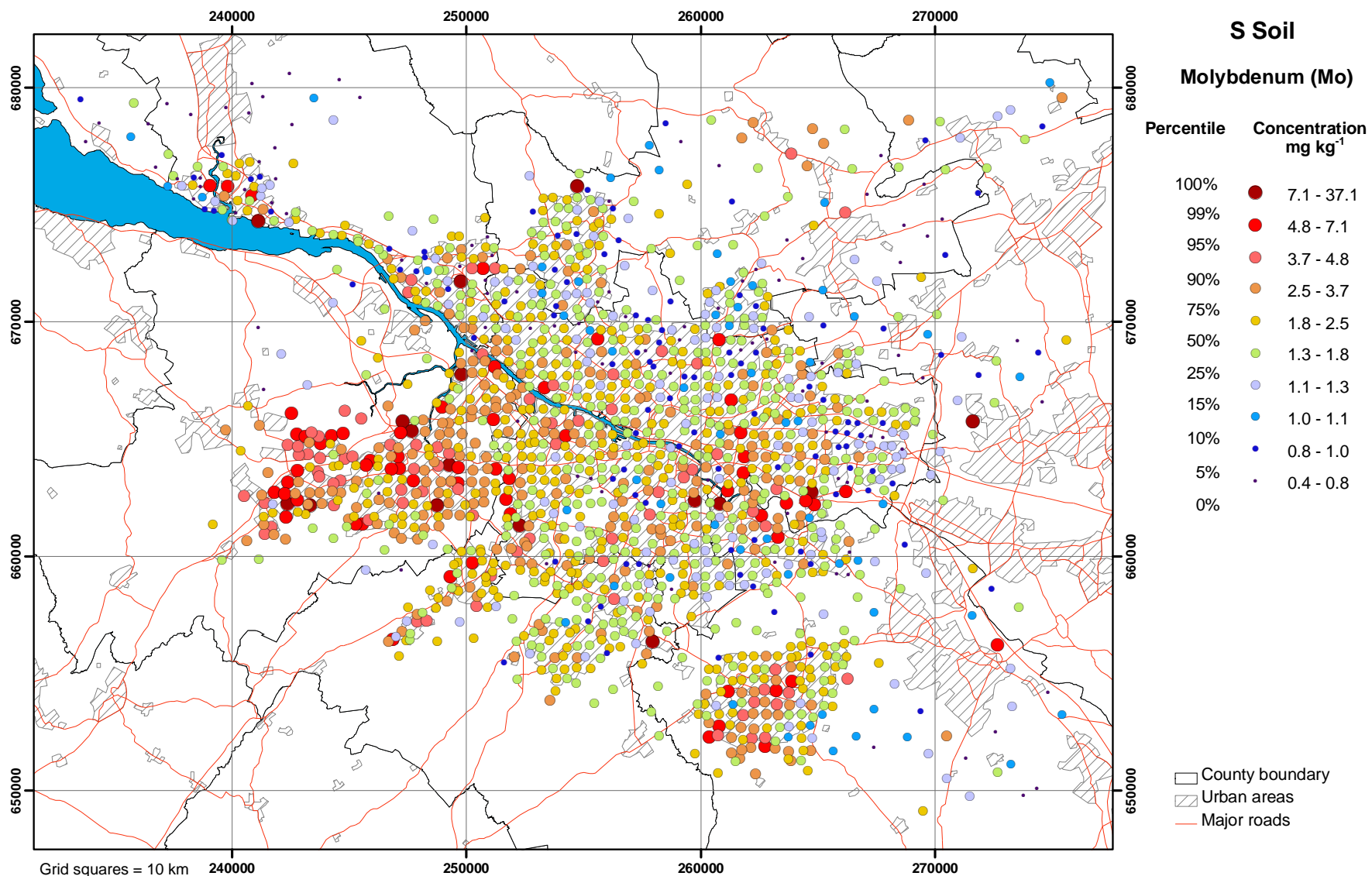


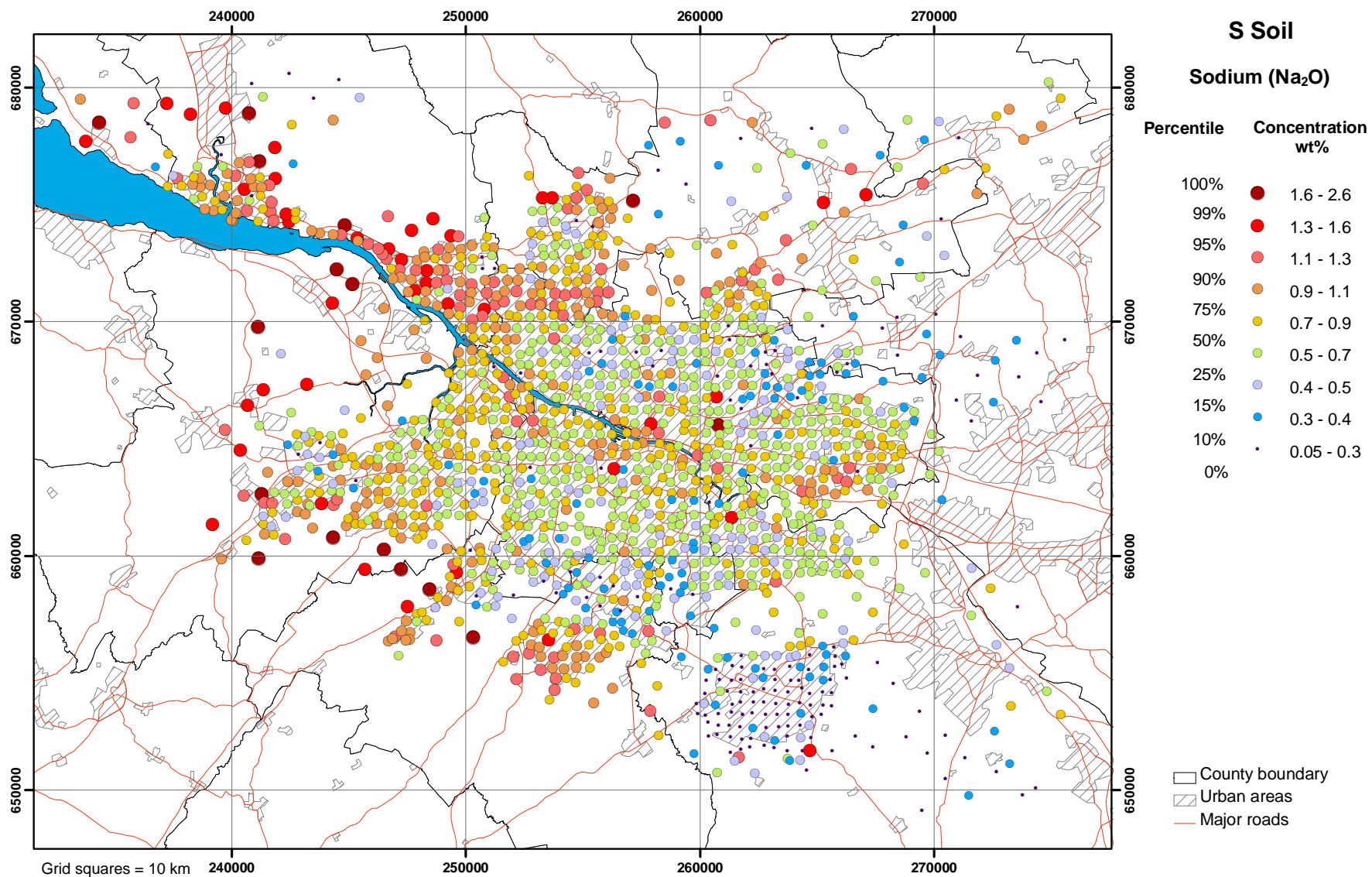


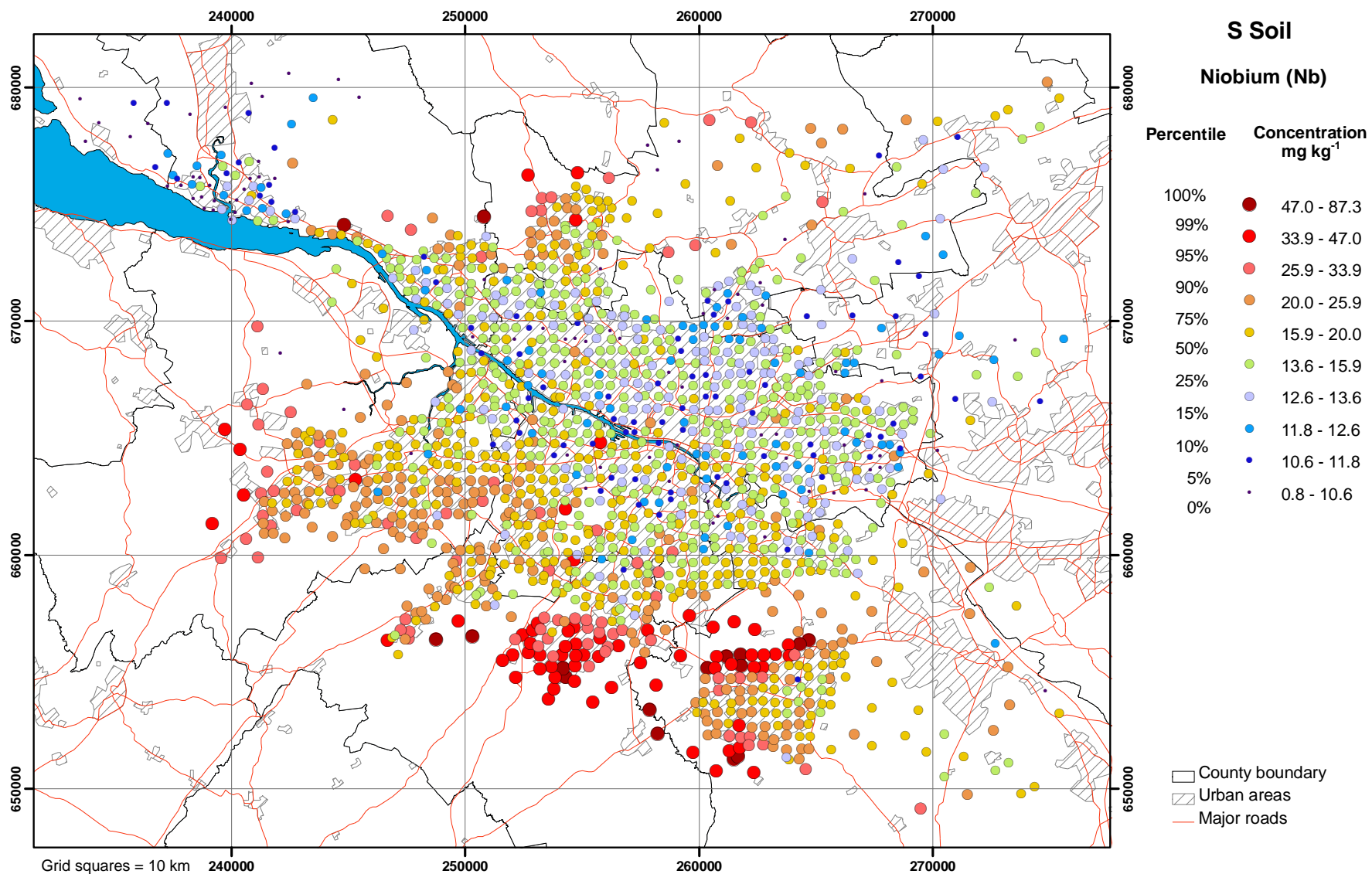


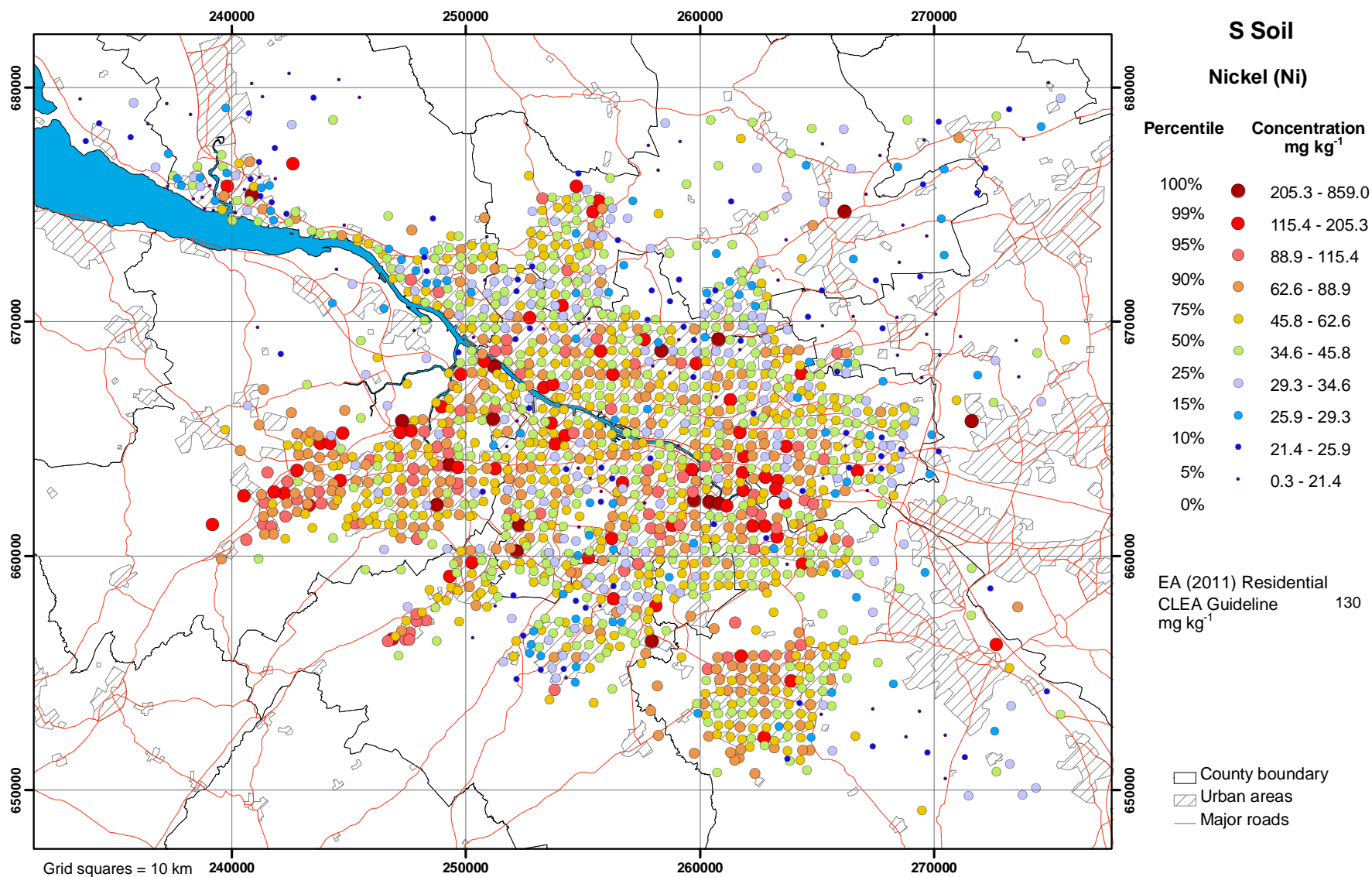




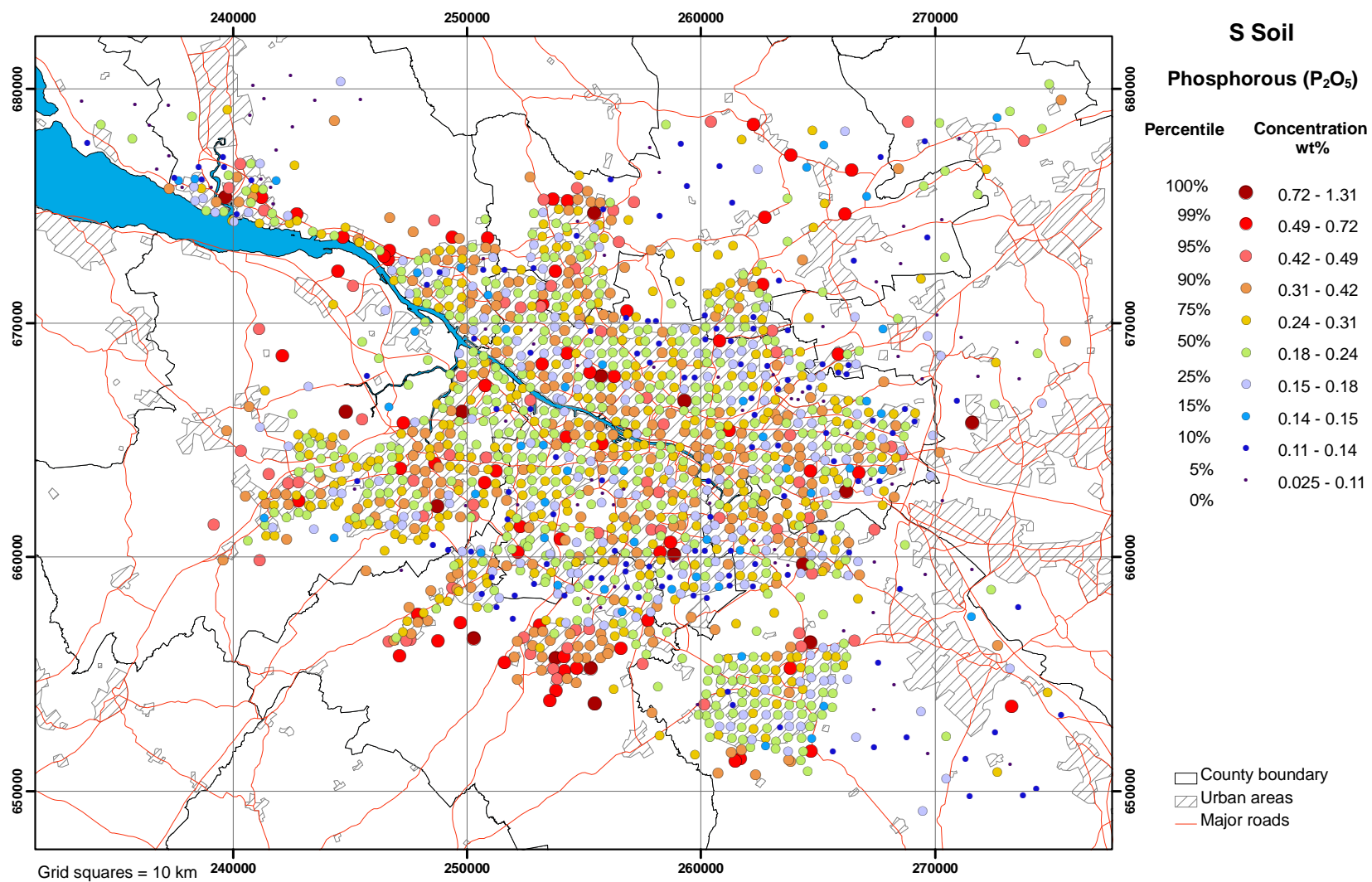


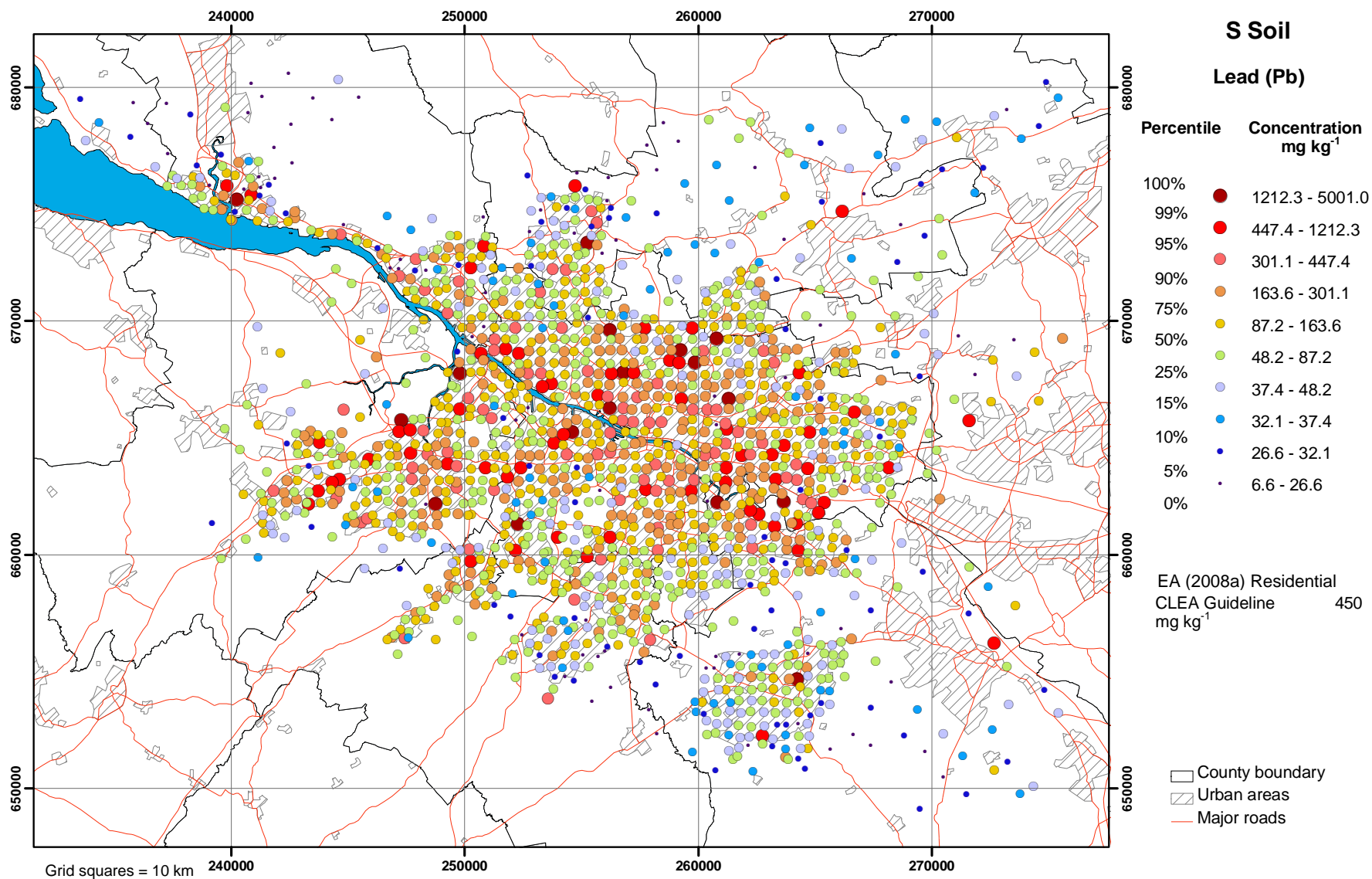


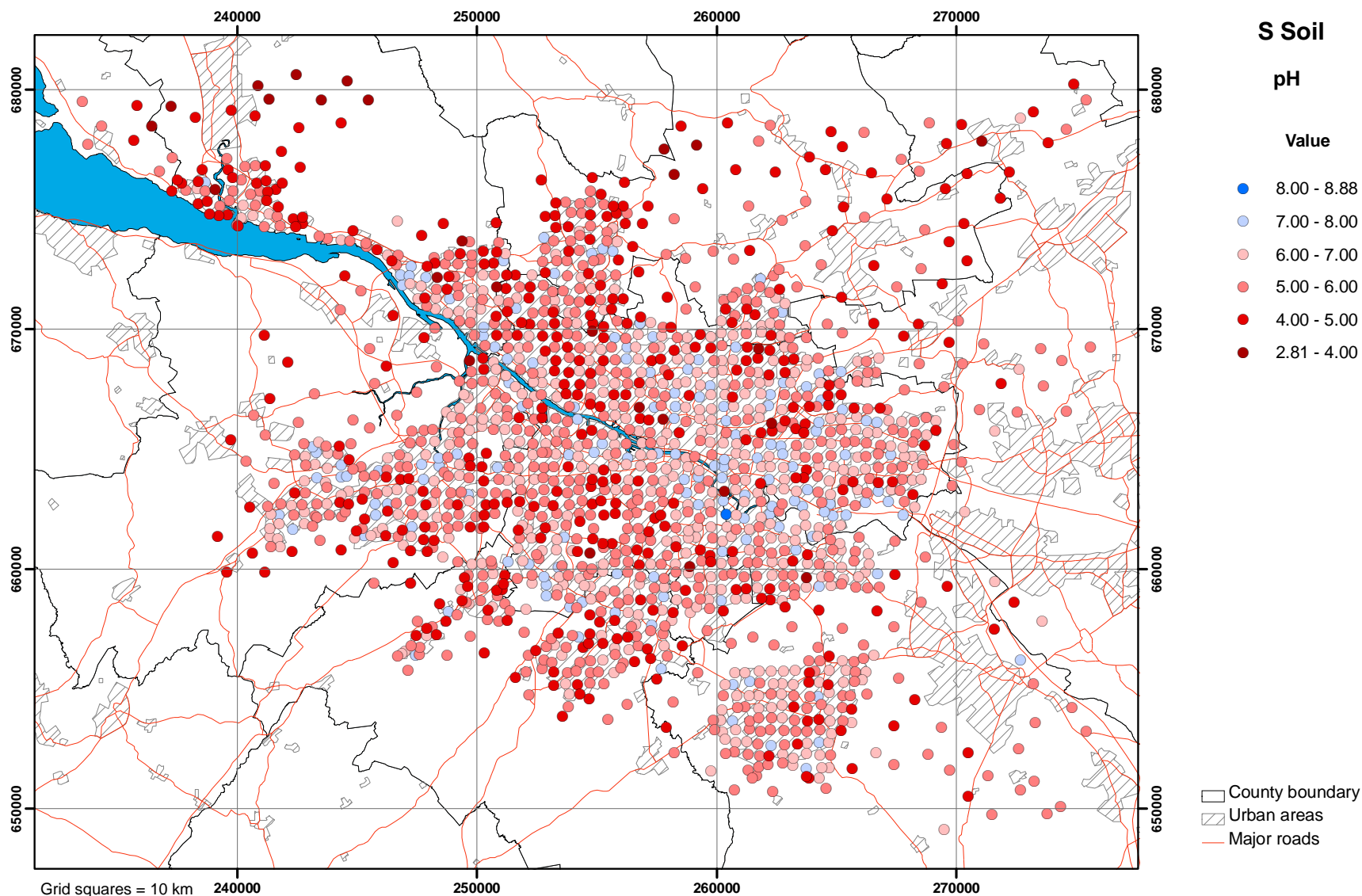


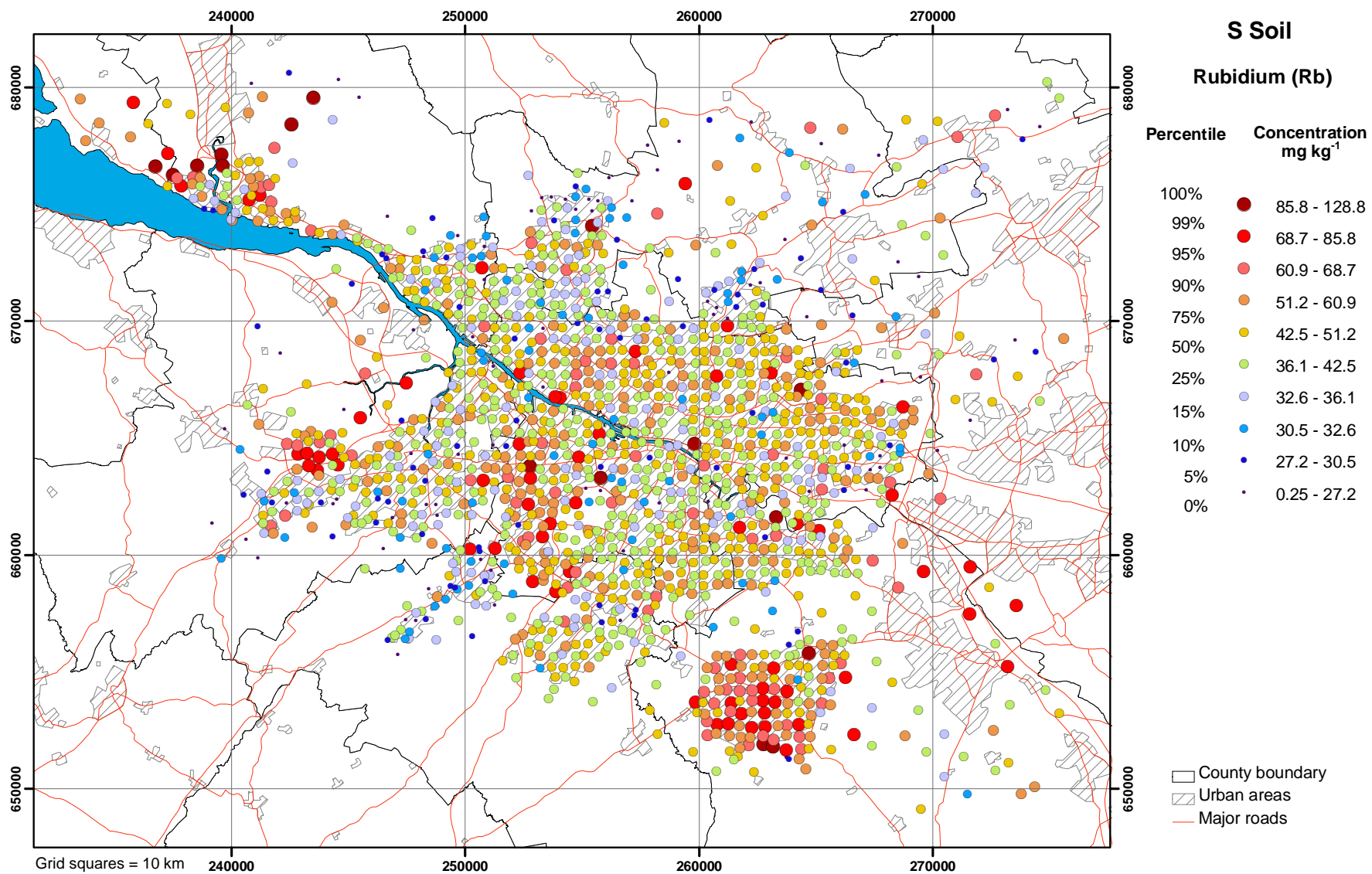




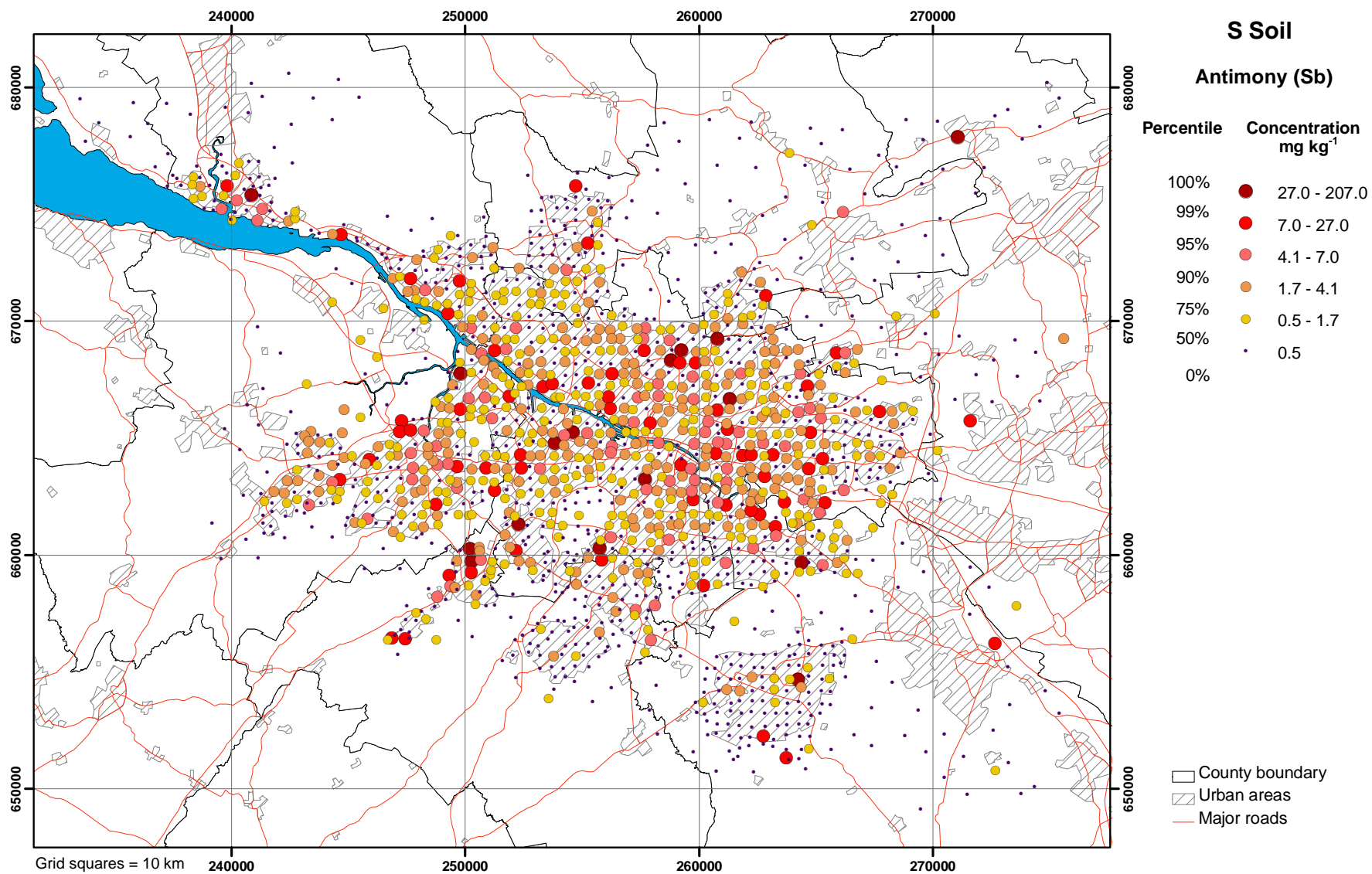


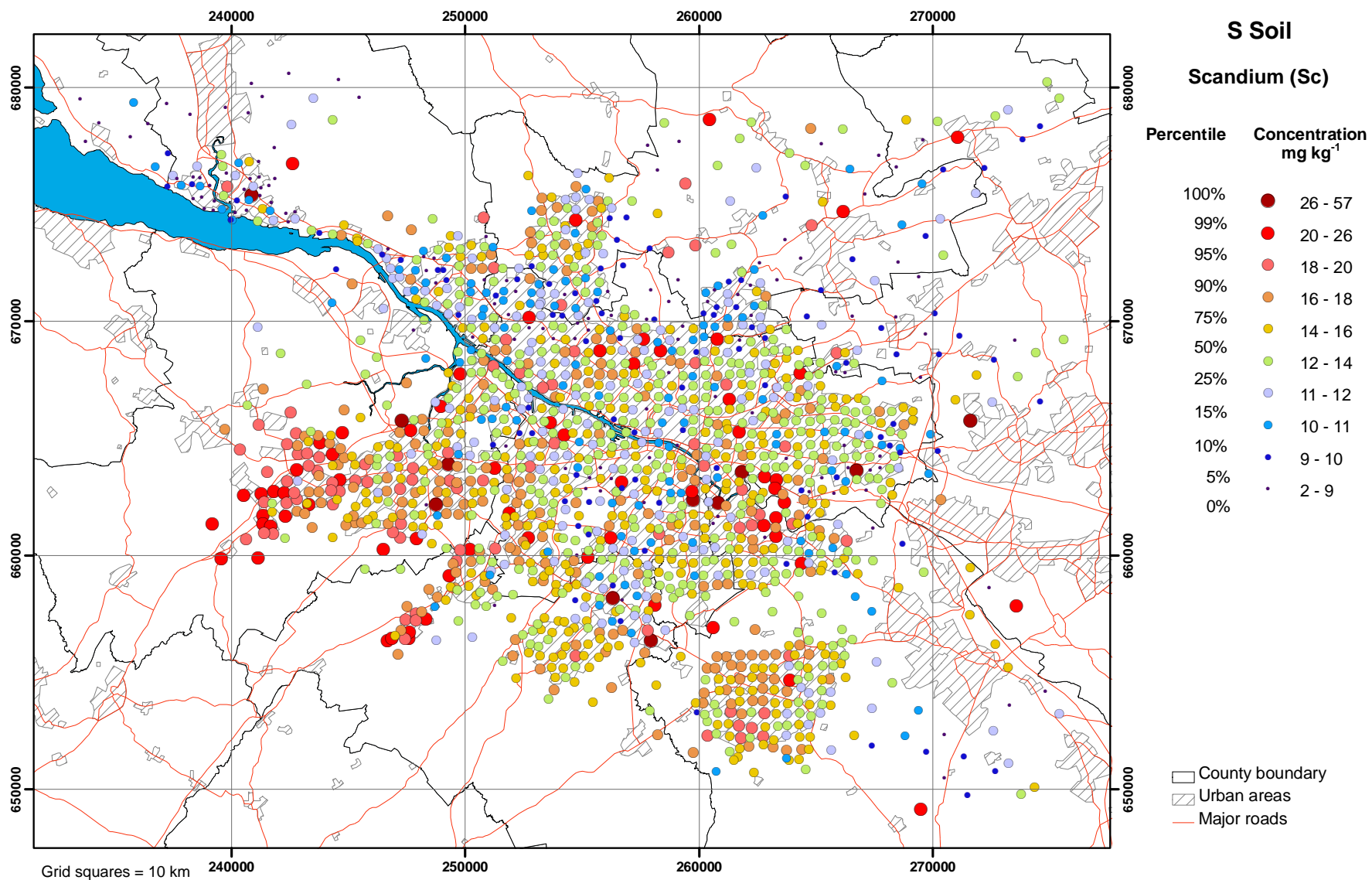


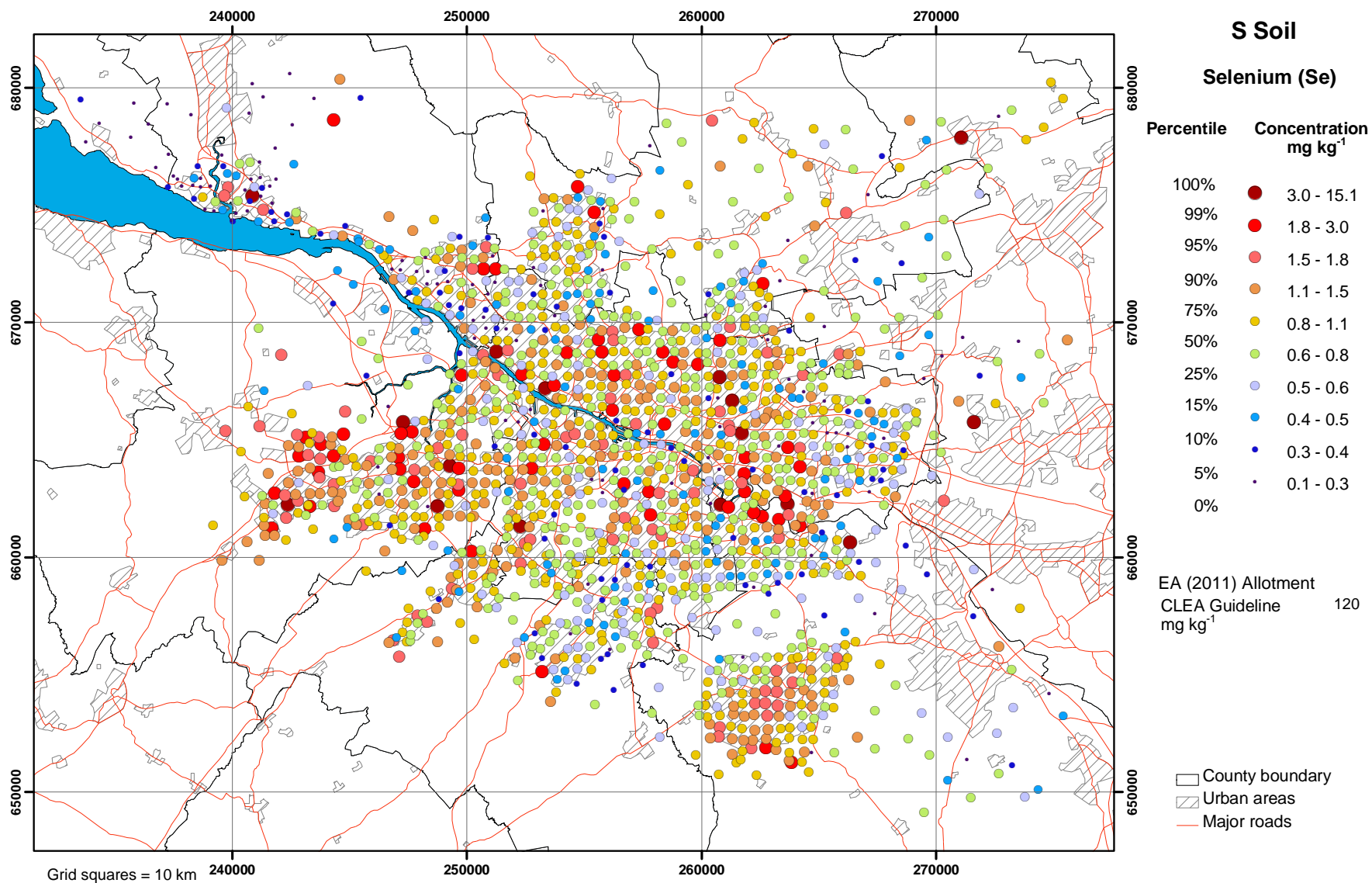


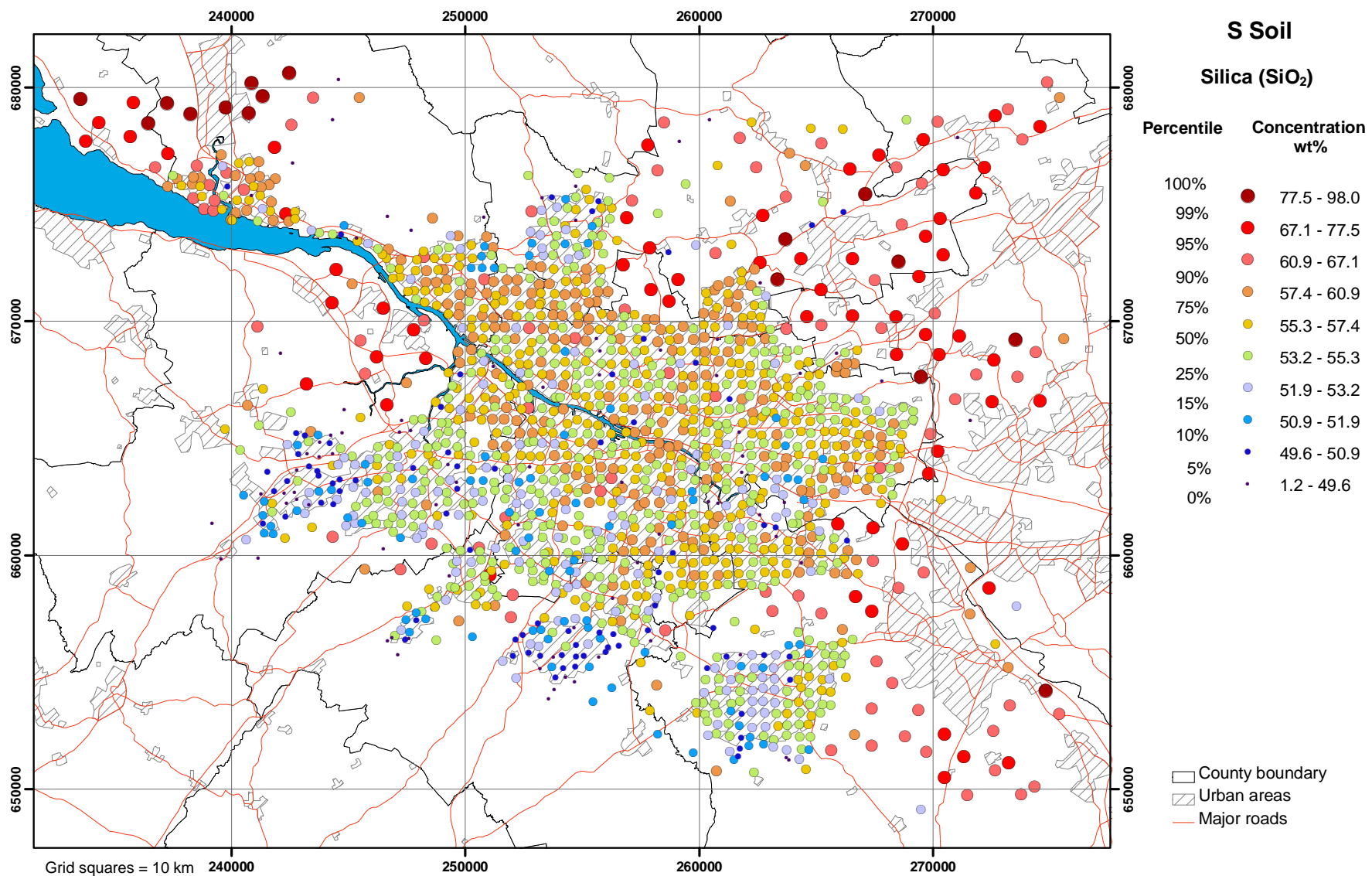




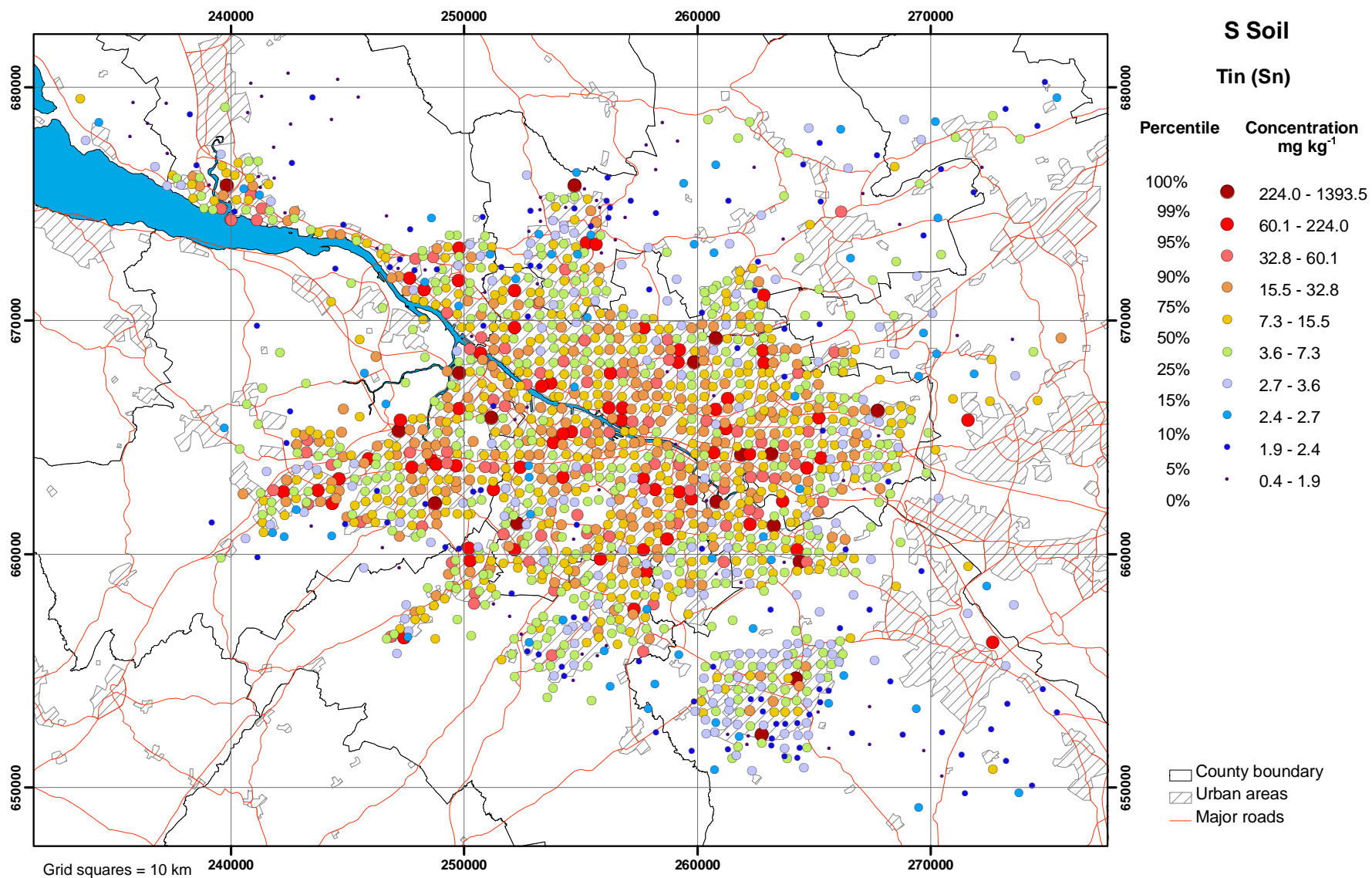


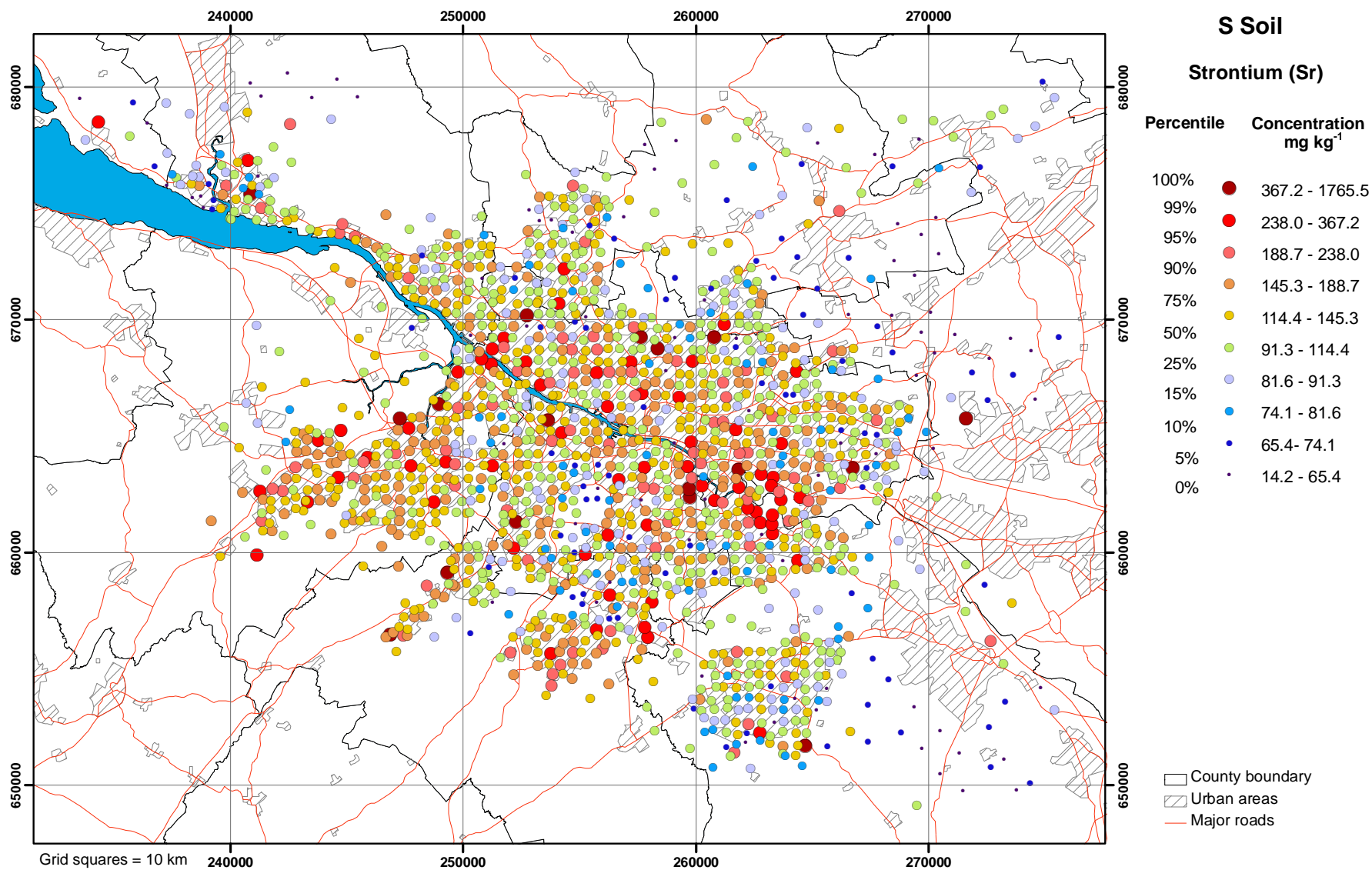


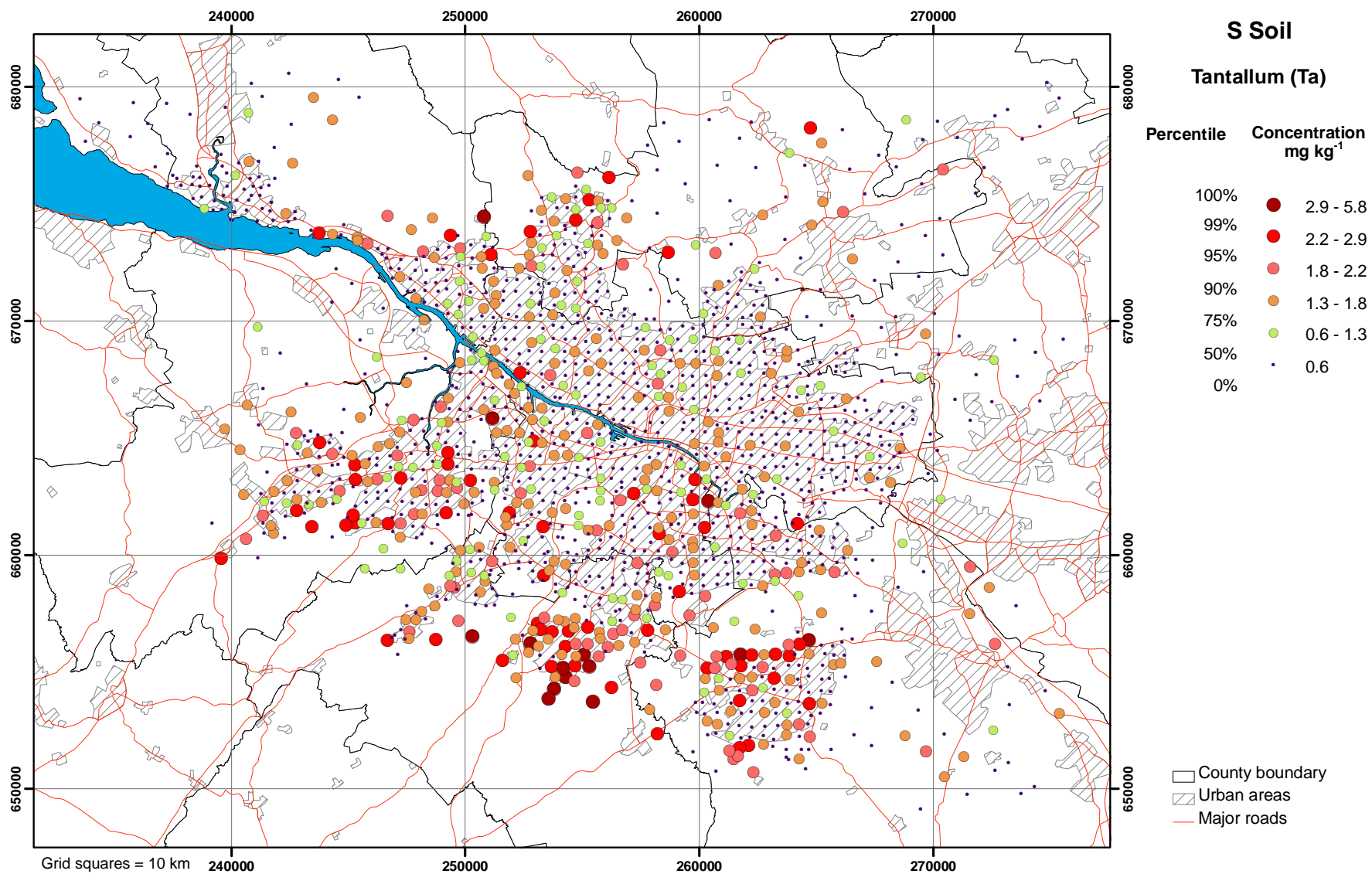


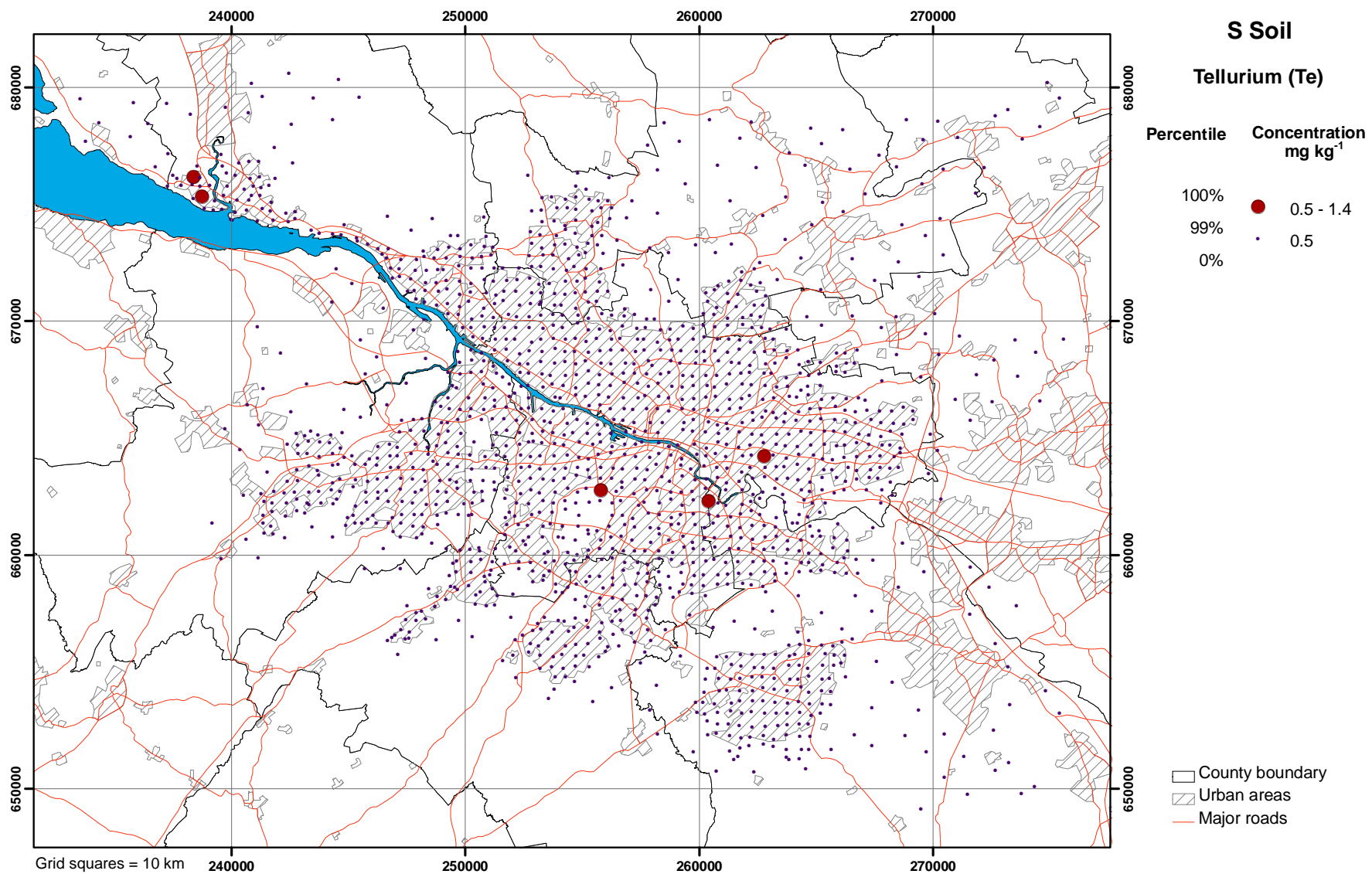




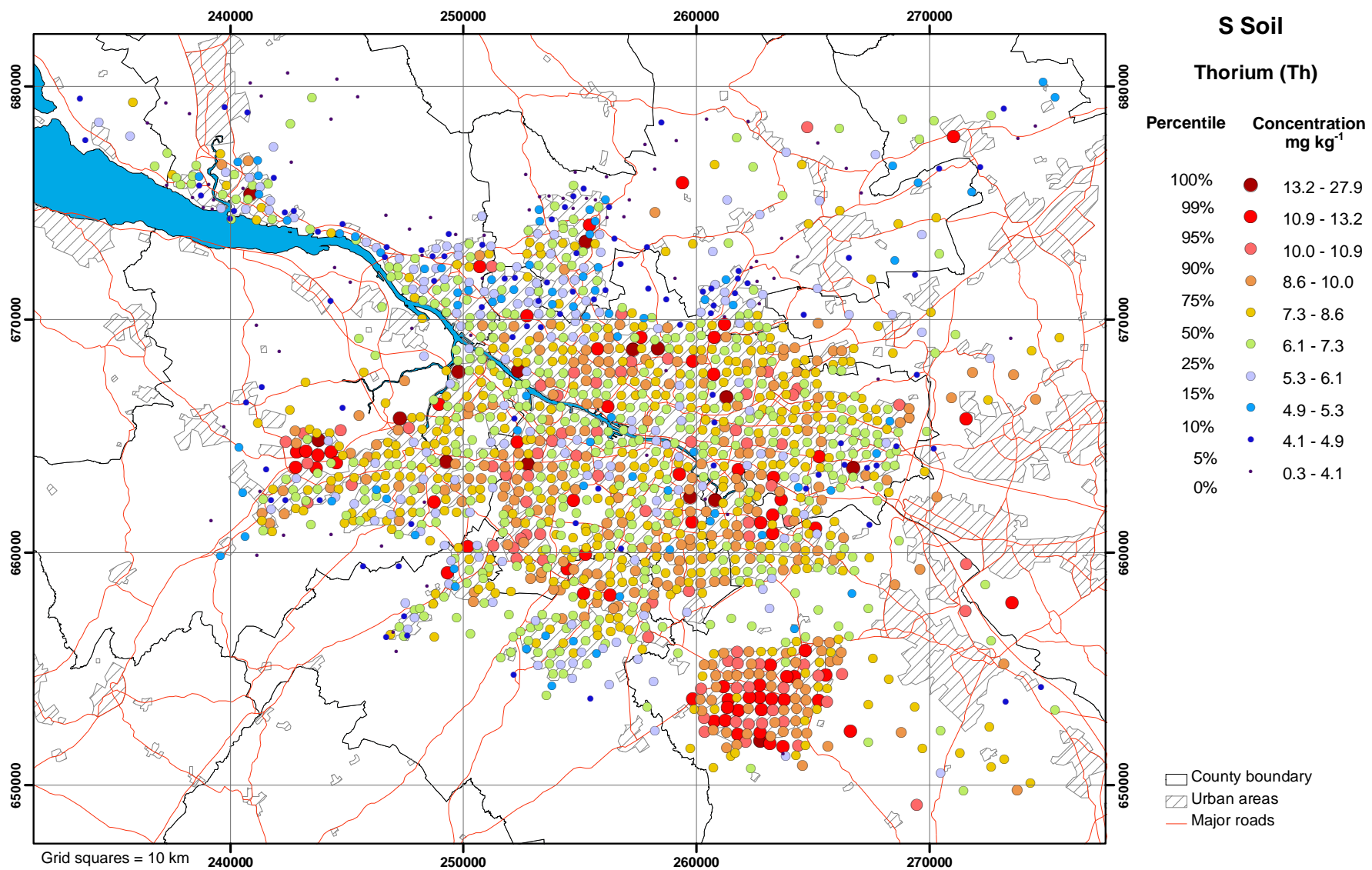


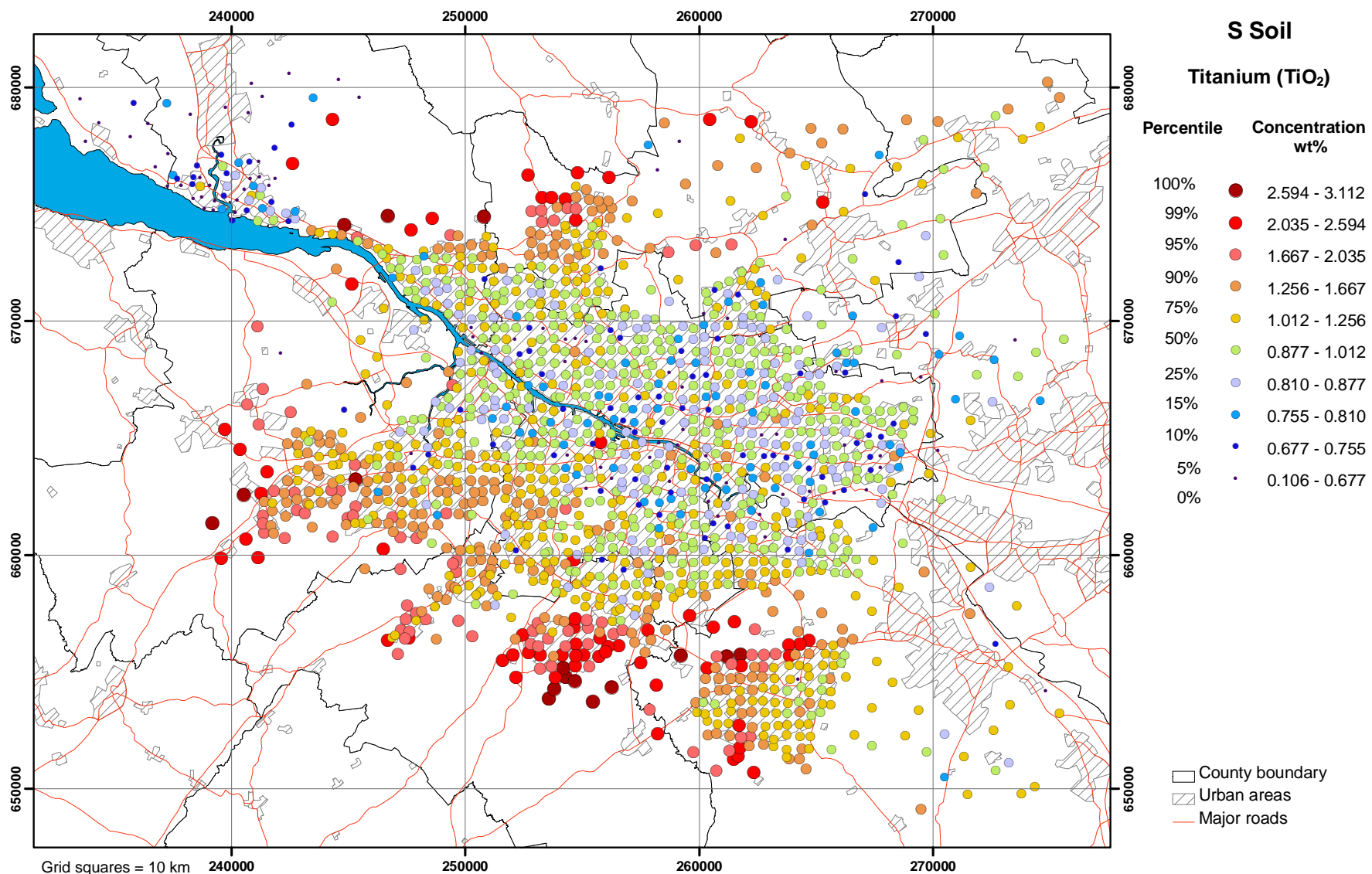


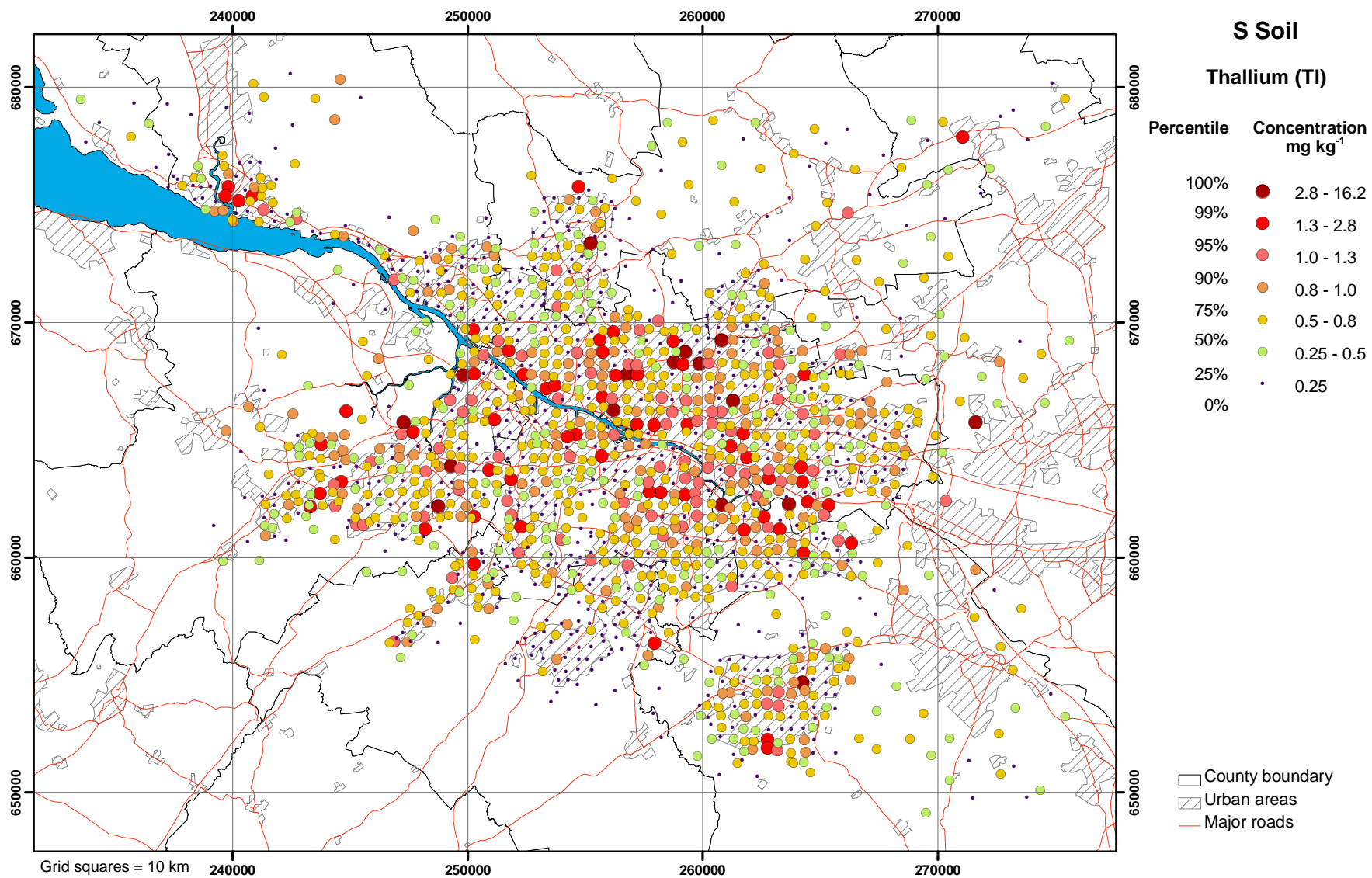


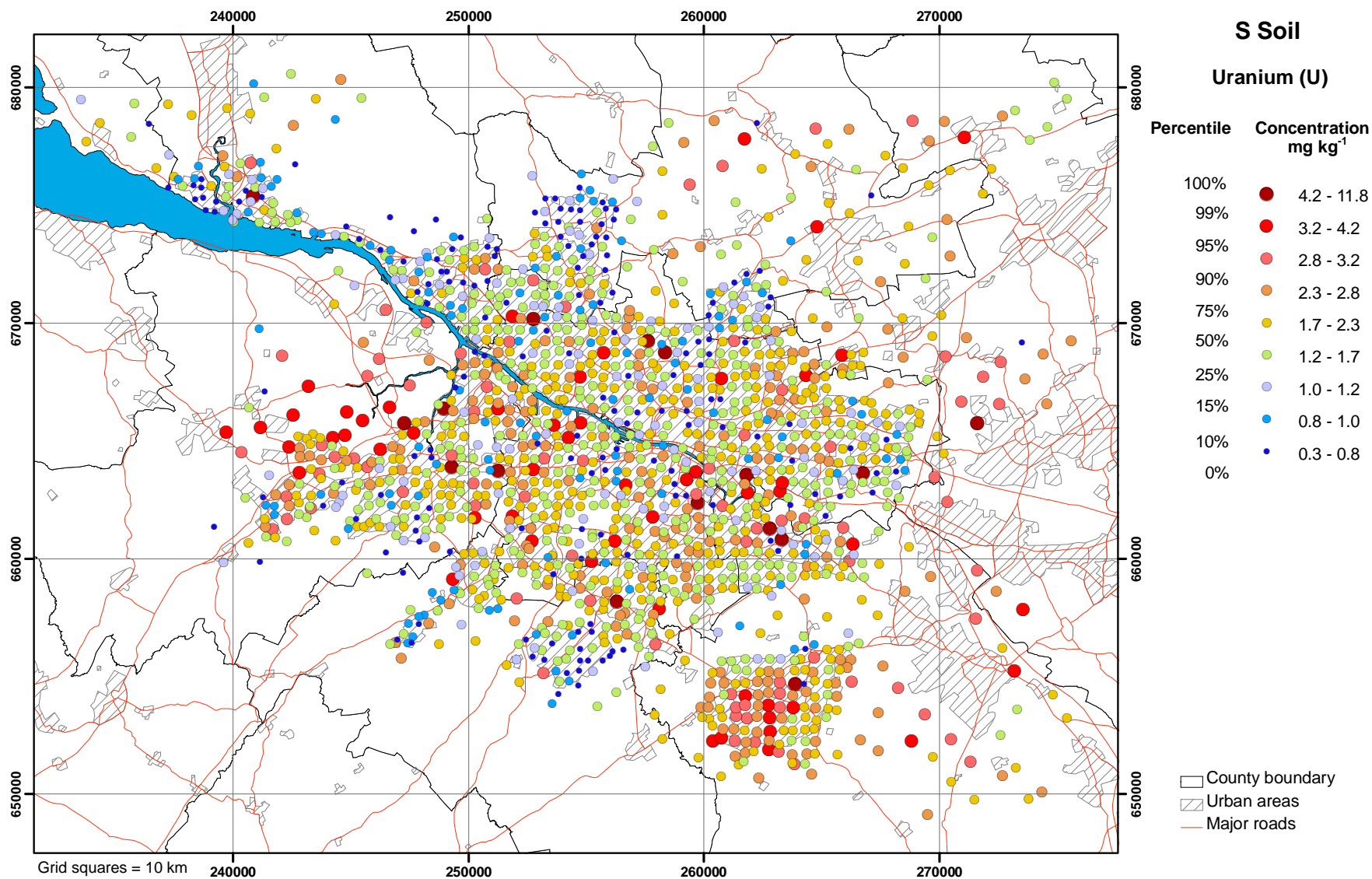




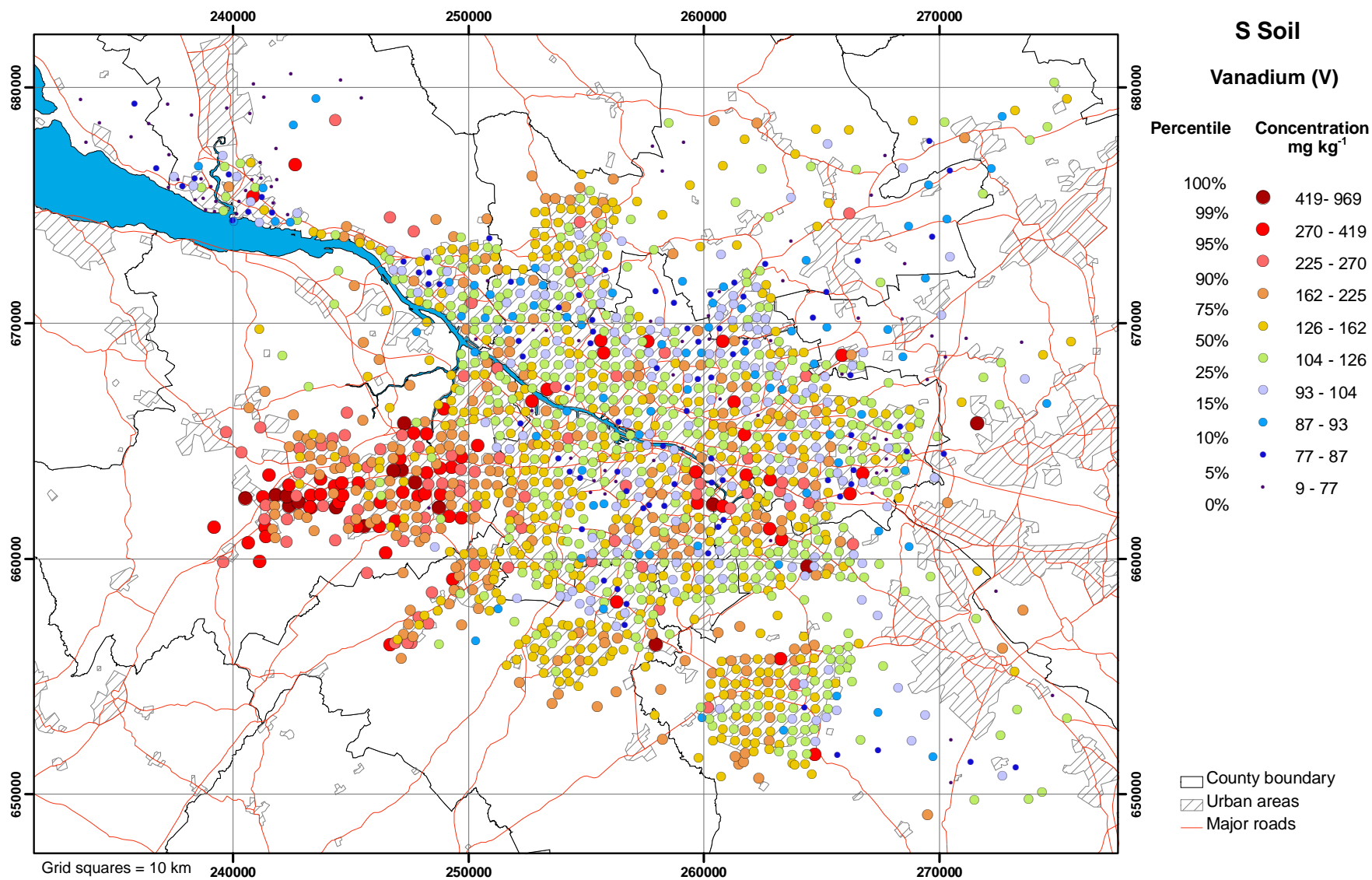


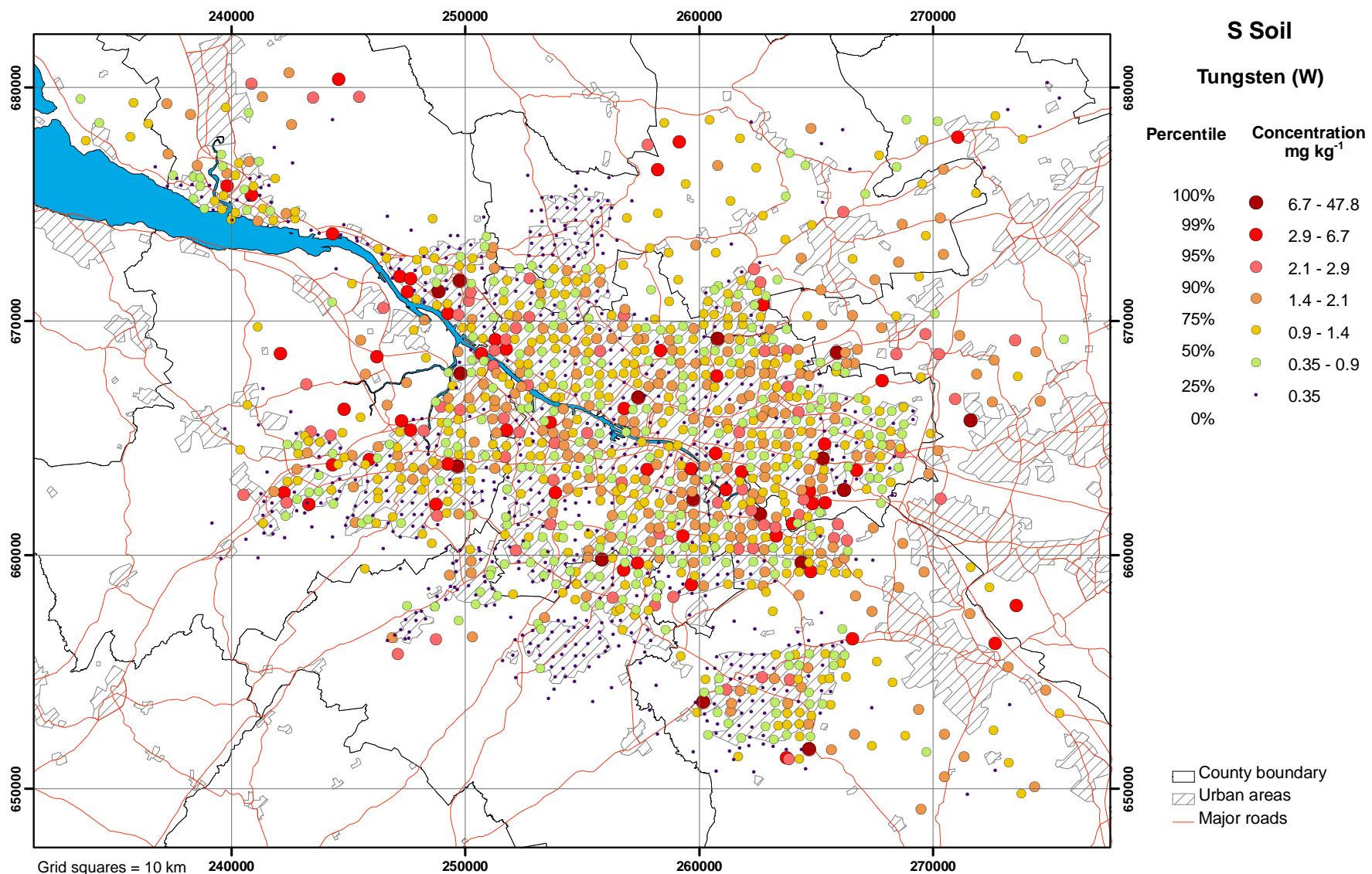


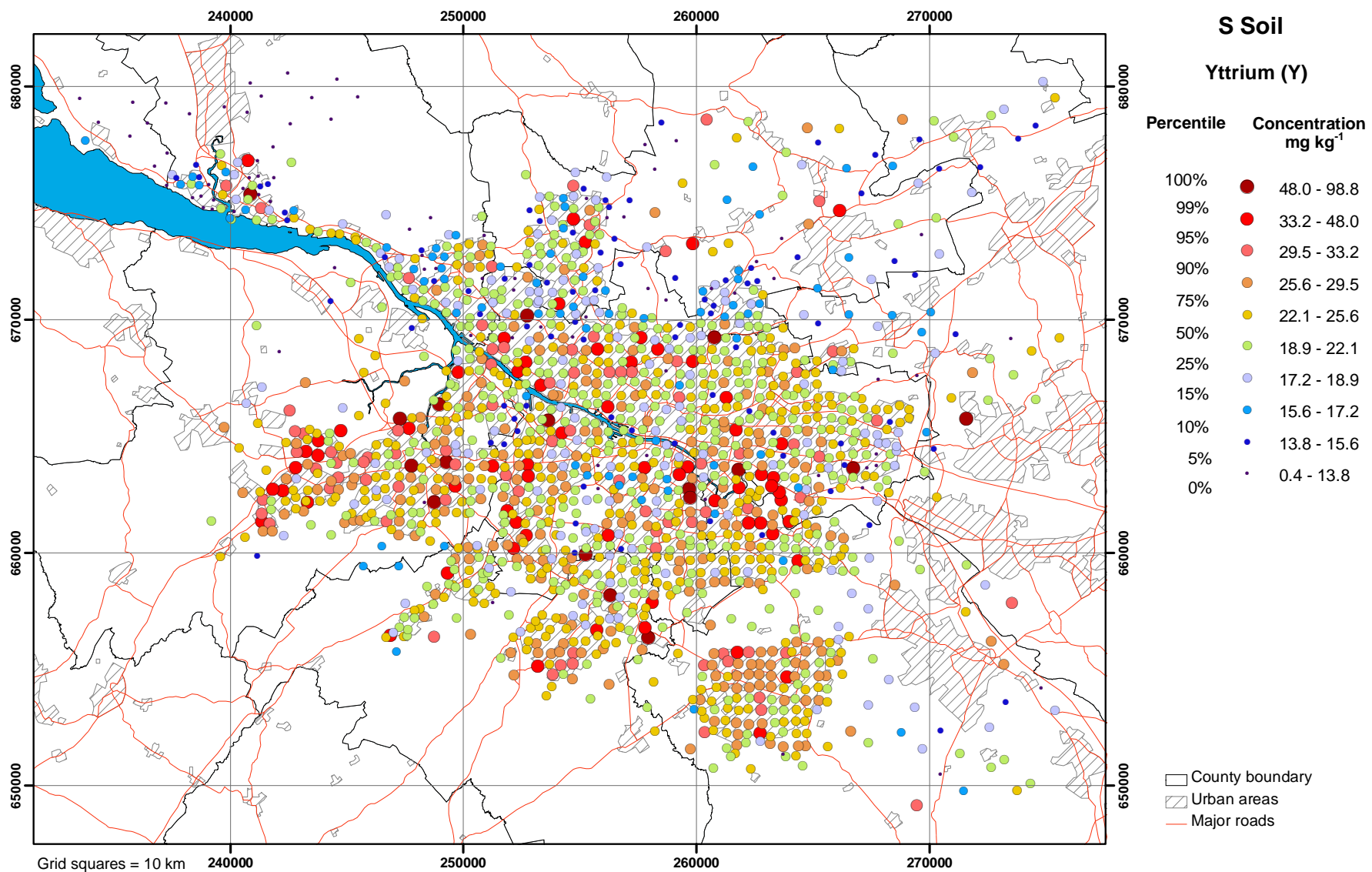


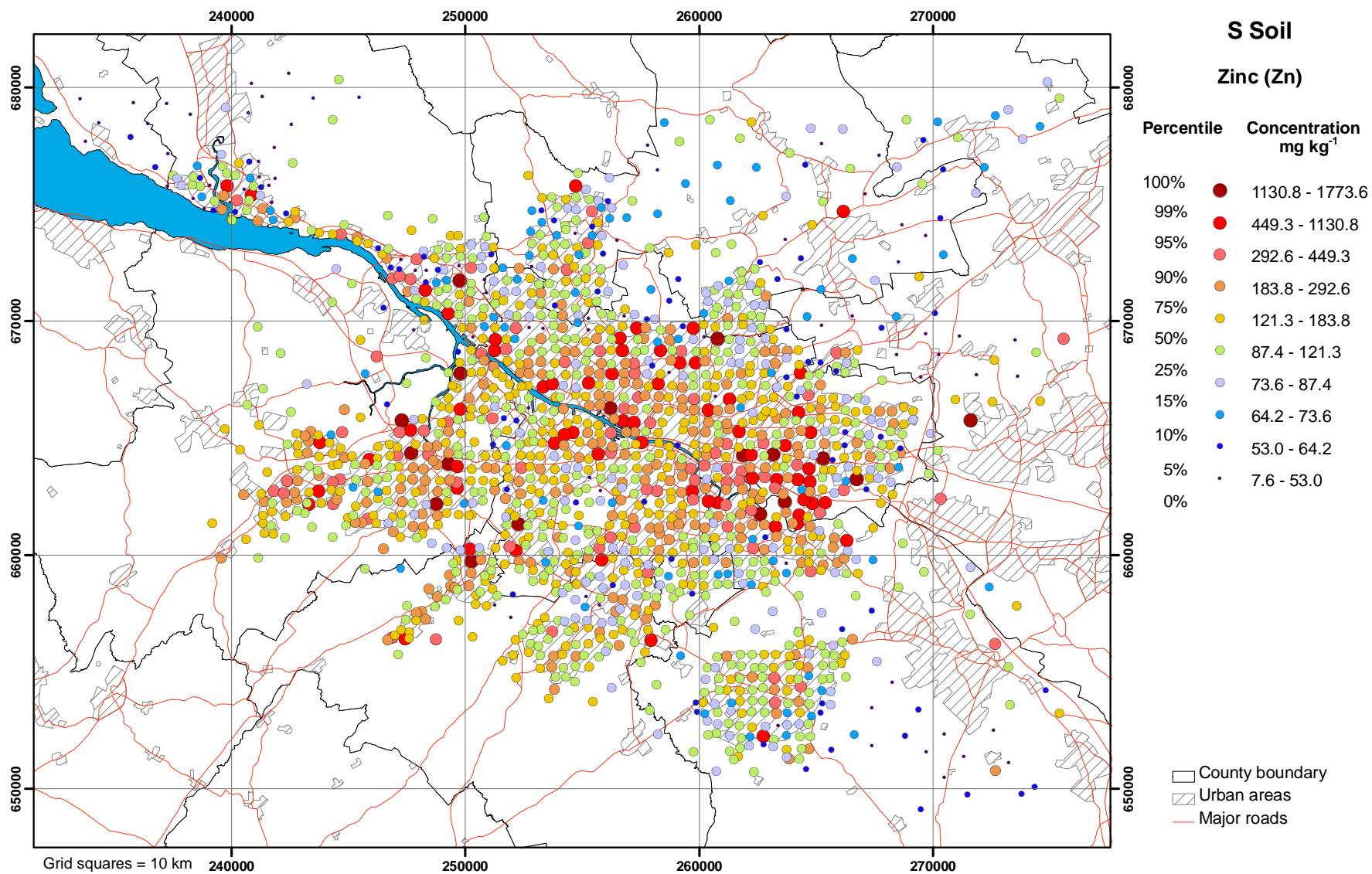




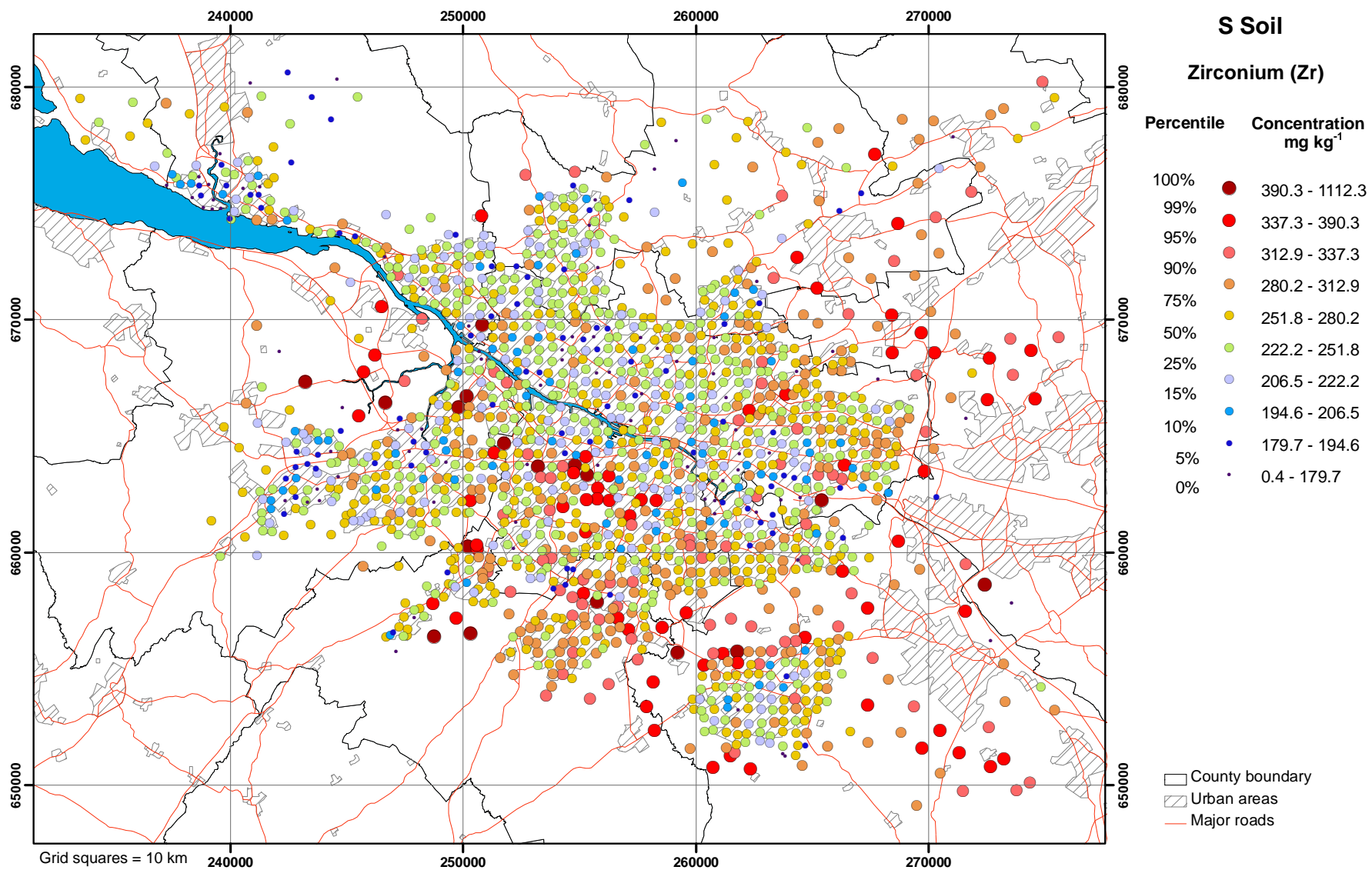


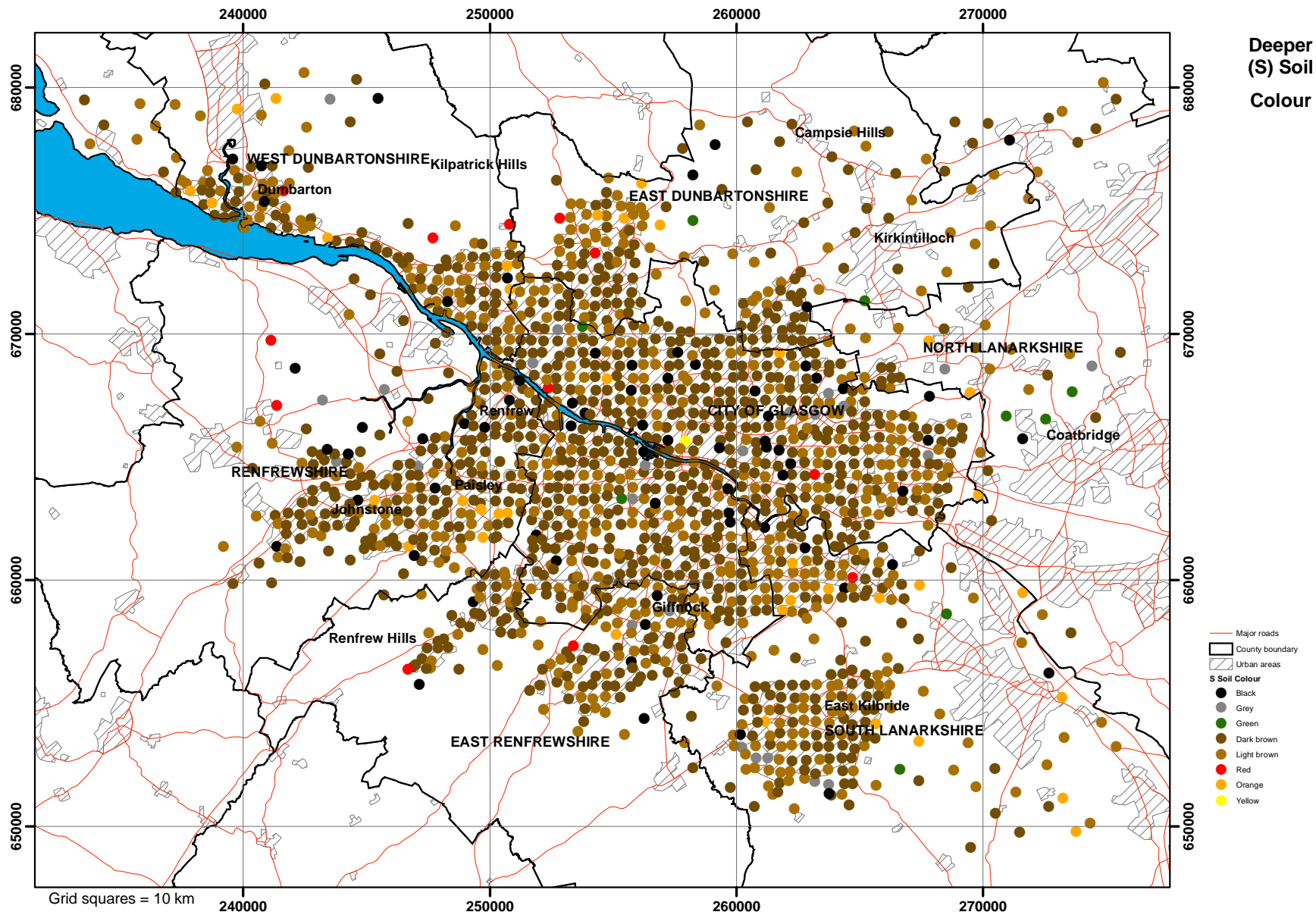


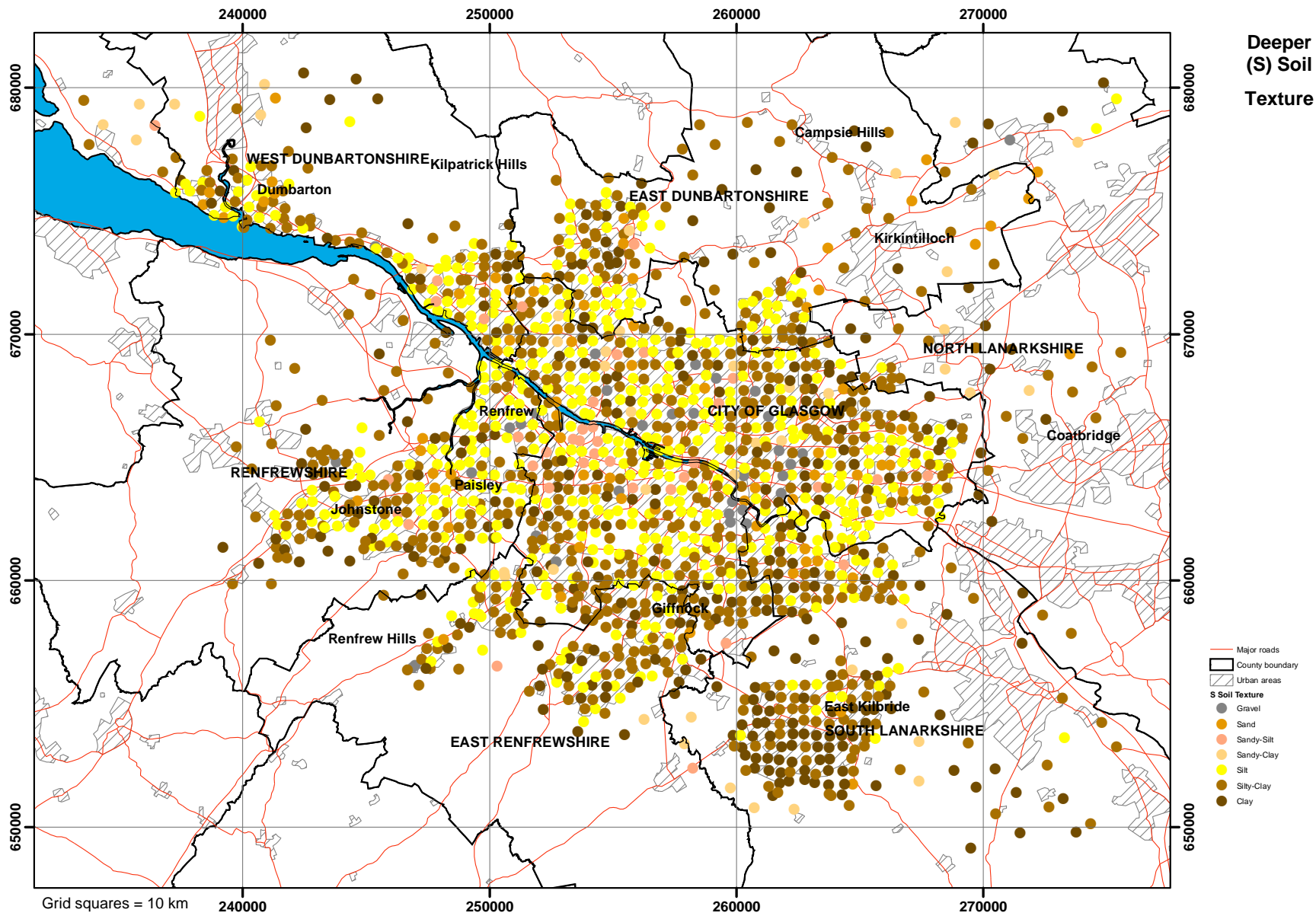










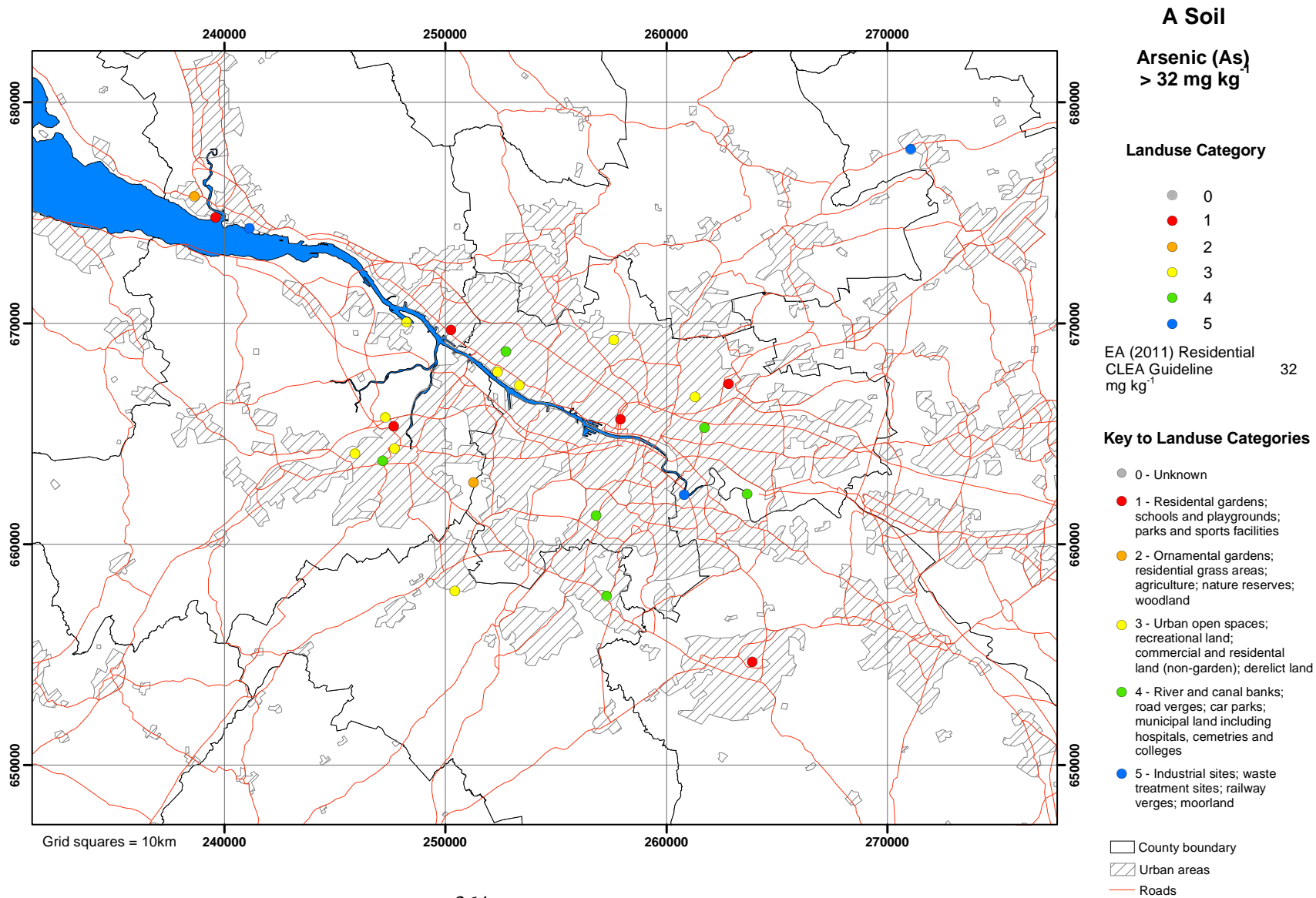


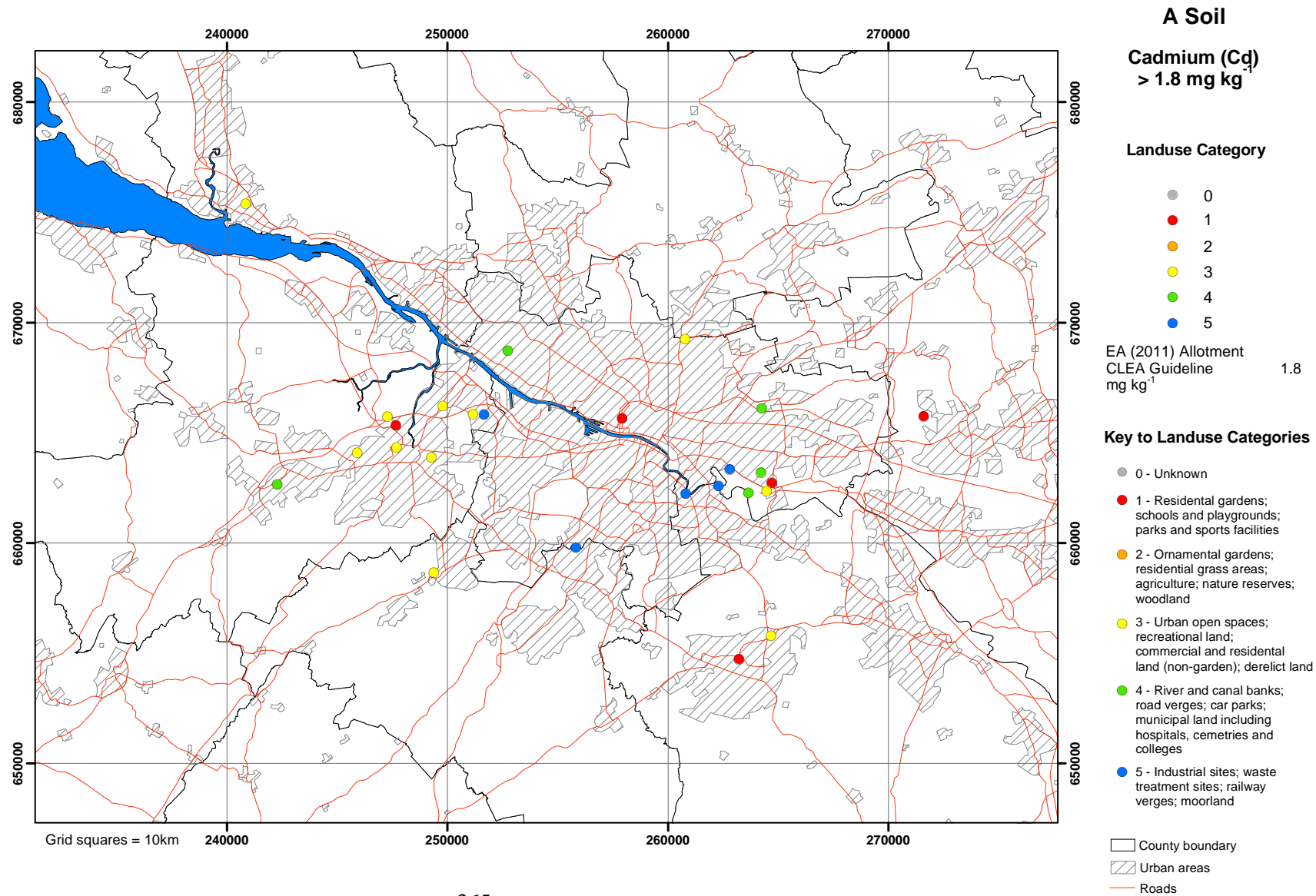
## Appendix 5. Parameter Concentrations Exceeding CLEA Soil Guideline Values in <2 mm Glasgow Top (A) Soils

Maps are arranged in alphabetical order according to chemical symbol.

CLEA Soil Guideline Values (SGVs) = EA (2008a) Residential: Cr, Pb; EA (2011) Residential: As, Ni; Allotment: Cd







## A Soil

**Chromium (Cr)  
> 130 mg kg<sup>-1</sup>**

### Landuse Category

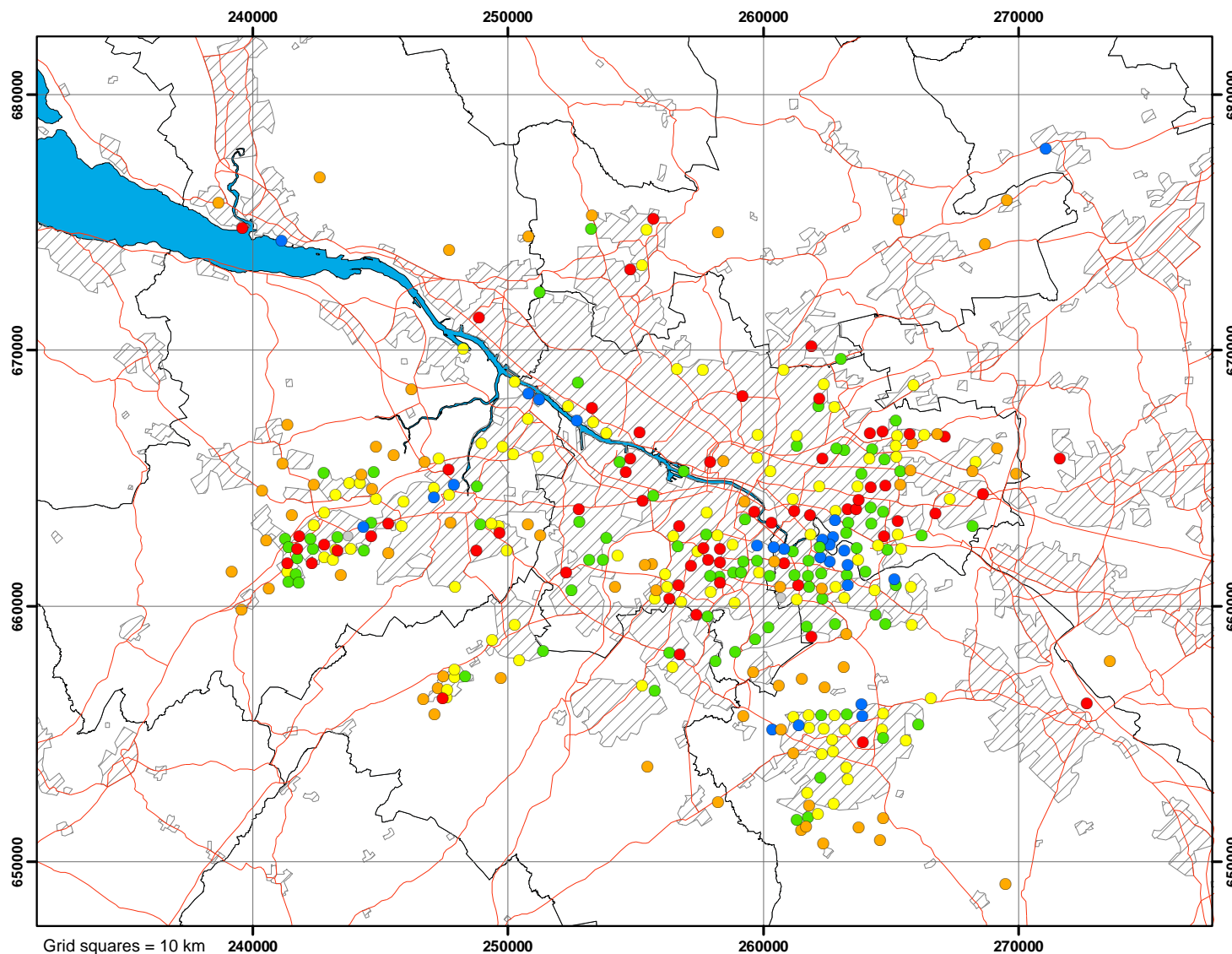
- 0
- 1
- 2
- 3
- 4
- 5

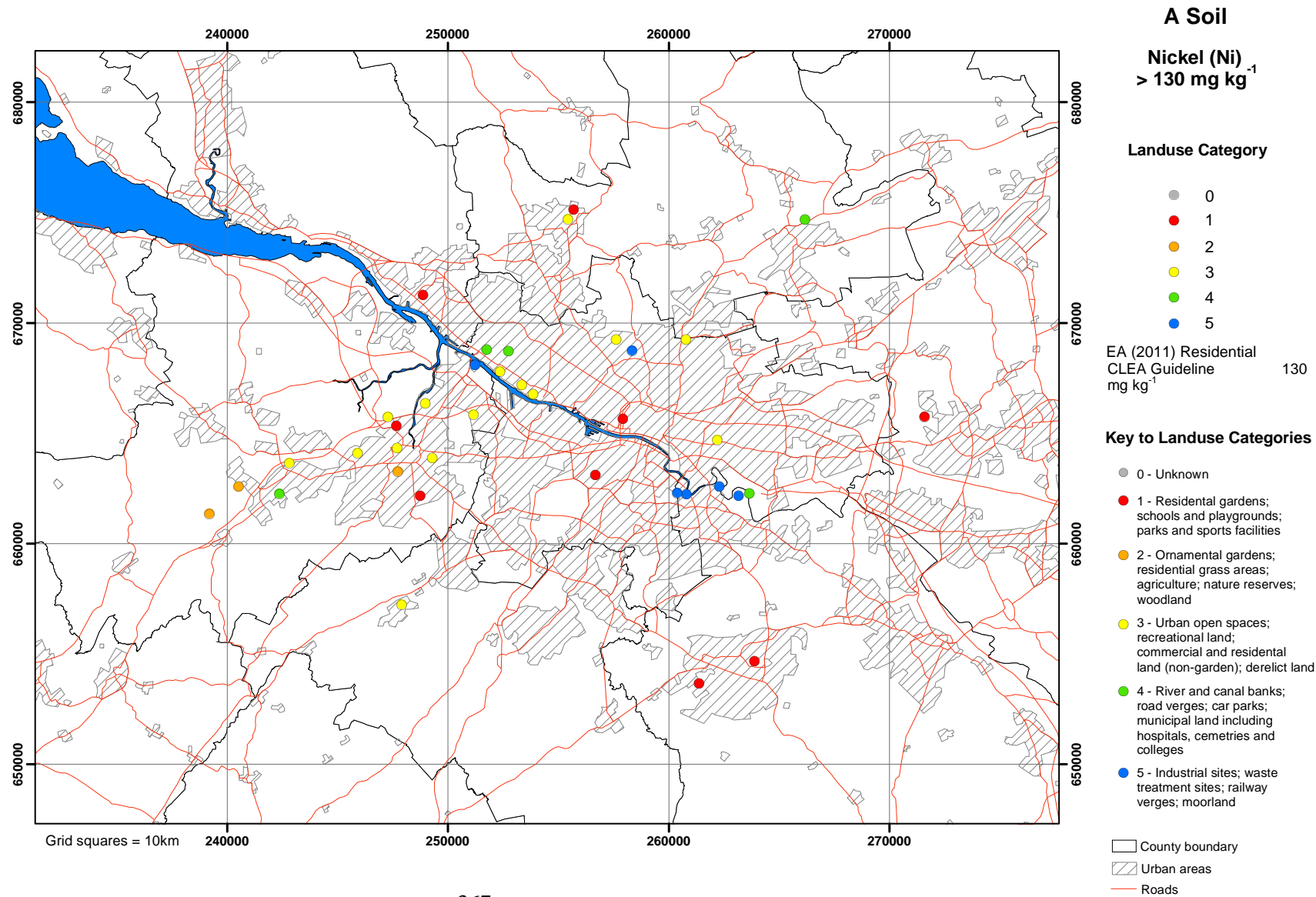
EA (2008a) Residential  
CLEA Guideline 130  
mg kg<sup>-1</sup>

### Key to Landuse Categories

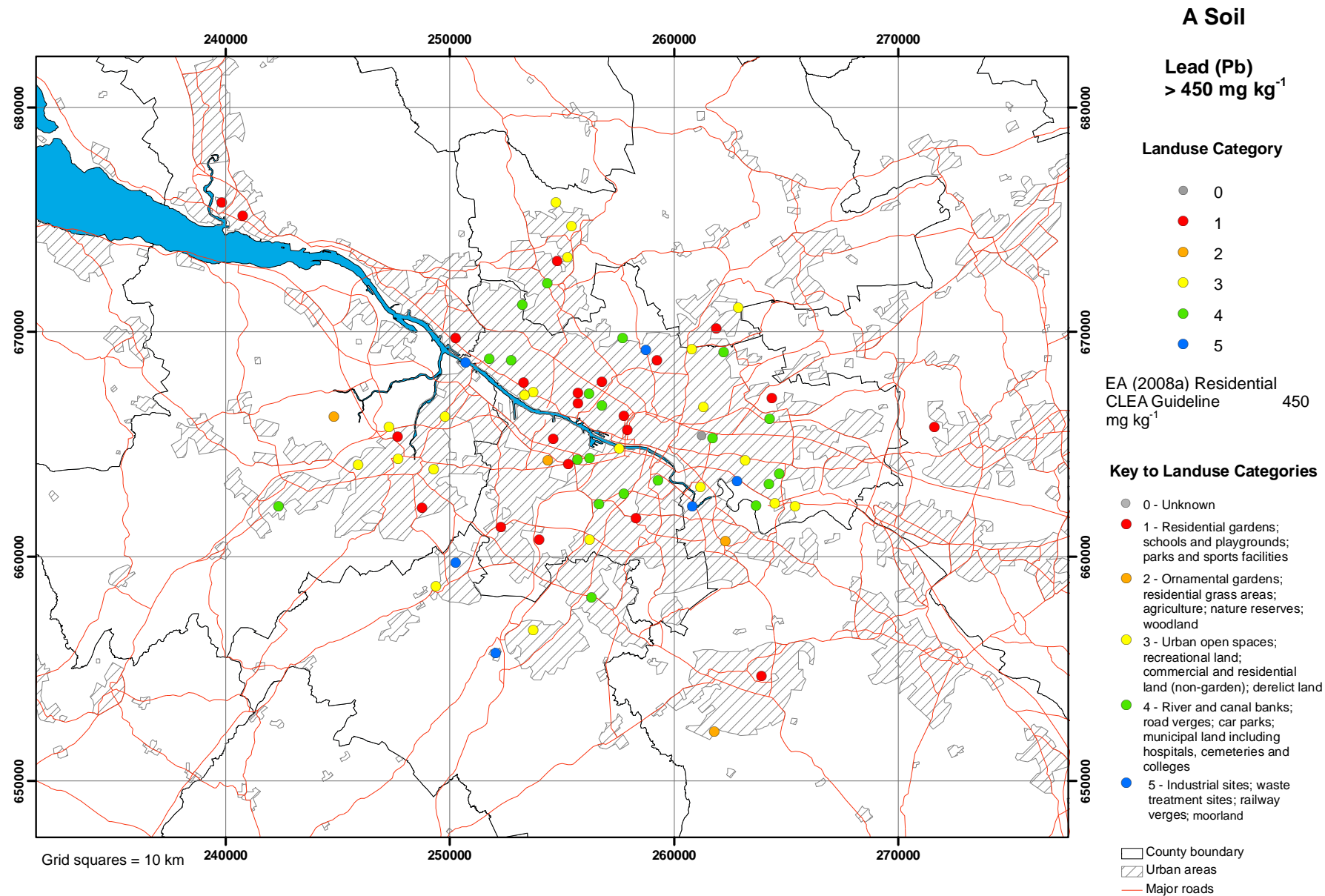
- 0 - Unknown
- 1 - Residential gardens; schools and playgrounds; parks and sports facilities
- 2 - Ornamental gardens; residential grass areas; agriculture; nature reserves; woodland
- 3 - Urban open spaces; recreational land; commercial and residential land (non-garden); derelict land
- 4 - River and canal banks; road verges; car parks; municipal land including hospitals, cemeteries and colleges
- 5 - Industrial sites; waste treatment sites; railway verges; moorland

- County boundary
- Urban areas
- Major roads









## Appendix 6. Parameter Concentrations Exceeding CLEA Soil Guideline Values in <2 mm Glasgow Deeper (S) Soils

Maps are arranged in alphabetical order according to chemical symbol.

CLEA Soil Guideline Values (SGVs) = EA (2008a) Residential: Cr, Pb; EA (2011) Residential: As, Ni; Allotment: Cd

